

MEMORANDUM

TO: Fred Porter, U.S. Environmental Protection Agency

FROM: Ruth Mead, Eastern Research Group

DATE: April 30, 1997

SUBJECT: Final Summary of March 19 and 20, 1997 Industrial
Combustion Coordinated Rulemaking Coordinating
Committee Meeting

1.0 INTRODUCTION AND PURPOSE OF MEETING

The March 19 and 20 meeting of the Coordinating Committee for the Industrial Combustion Coordinated Rulemaking (ICCR) project was the third meeting of the congressionally chartered Federal Advisory Committee Act (FACA) committee. The main purposes of the meeting were to (1) approve the information collection plan developed by the subgroup, (2) consider issues raised by the Work Groups and provide feedback and direction, and (3) select a stakeholder co-chair. Other items of business were also discussed. A copy of the meeting agenda is included in attachment 1. A copy of the attendance list for the meeting is included in attachment 2.

The remainder of the meeting summary is organized in the following sections:

- 2.0 Membership Changes and Previous Business
- 3.0 Information Collection Plans
- 4.0 Process Heater Work Group Report and Coordinating Committee Direction to the Work Group
- 5.0 Stationary Combustion Turbine Work Group Report and Coordinating Committee Discussion

6.0 Other Work Group Reports, Discussion, and Public Comment

7.0 Selection of Stakeholder Co-Chair

8.0 Budget Subgroup Report

9.0 Next Meetings and Future Agenda Items

2.0 MEMBERSHIP CHANGES AND PREVIOUS BUSINESS

2.1 Coordinating Committee Membership Additions

Fred Porter of EPA reported that the EPA Deputy Administrator has nominated the following new members to the ICCR Coordinating Committee:

Keith Harley -- Chicago Legal Clinic, representing environmental justice interests

Ted Guth -- Stationary Combustion Turbine Work Group Stakeholder Co-Chair

Vick Newsom -- Stationary Internal Combustion Engine Work Group Stakeholder Co-Chair

John Ogle -- Process Heater Work Group Stakeholder Co-Chair

Norm Morrow -- Incinerator Work Group Stakeholder Co-Chair

The other three Work Groups will have their stakeholder nominated before the next Coordinating Committee meeting.

The Coordinating Committee agreed to allow the following representatives of the other three Work Groups to sit at the meeting table for the March 19 and 20 meeting:

Joseph Mackell -- Economic Analysis Work Group

Farhana Mohamed -- Testing and Monitoring Protocol Work Group

Jim Stumbar -- Boiler Work Group

2.2 Work Group Membership Changes

Fred Porter of EPA presented EPA's recommendation for additional Work Group members and alternates. The EPA had received nominations submitted by several individuals and found that the nominees met the criteria for Work Group membership. Several of the proposed membership additions also improve the balance of the Work Groups in terms of stakeholder interest group representation.

The Coordinating Committee approved the nominations for Work Group members and alternates as proposed by EPA. Attachment 3 is a copy of the approved membership changes.

Committee members asked that revised lists of Work Group members and alternates be posted on the TTN and EPA agreed to this.

2.3 Discussion of Representation

Questions were raised about the letter from the Keystone Center asking whether Coordinating Committee members represent small businesses. In particular, what is meant by "represent"? Also, how should Coordinating Committee members handle inquiries about the ICCR?

Fred Porter responded that the purpose of Keystone's letter is to try to assess how well small businesses are represented on the Coordinating Committee. The ICCR document the Coordinating Committee reviewed at the January meeting discusses what is meant by "represent". Each Coordinating Committee member is expected to represent the interests of a broad group of stakeholders. Members are expected to interact with the various components of the broad group of stakeholders they represent to develop an understanding of the group's interests and viewpoints. To "represent" means that the member will strive to understand and express the range of interests and viewpoints within the broad group of stakeholders they represent to the Coordinating

Committee. If Committee members can represent some small business interests, given this definition of "represent", they should indicate to the Keystone Center what type of small businesses they can represent.

As a representative of a broad interest group, it is appropriate for Coordinating Committee members to keep the stakeholder groups they represent informed on the ICCR and answer their questions. Meeting minutes and other information to help Committee members communicate about the ICCR's progress will be available on the TTN. Fred noted, however, that as stated in the ICCR document, when speaking to individuals outside of the Coordinating Committee, members should speak only for themselves and not attribute statements or positions to other participants or speculate about the opinions of the Committee.

It was suggested that it would be helpful for Coordinating Committee members to write down what groups and interests they represent so that this information can get added to the Coordinating Committee membership list on the TTN. Fred Porter of EPA asked members to submit this information and agreed to post it on the TTN.

2.4 Relationship Between the ICCR and EPA

Fred Porter briefly reviewed the relationship between the ICCR and EPA. The ICCR Coordinating Committee was established to provide recommendations to EPA. The EPA will give great weight to those recommendations, but EPA retains its independent decision-making responsibility and authority. It should come as no surprise that EPA may not do everything the Committee recommends. There may be times when EPA needs to make its own decisions and move forward to meet the Clean Air Act requirements and schedule for the ICCR. Fred noted that EPA's relationship to the ICCR is similar to that of other organizations. For example, trade associations are participating in the ICCR, but the

Coordinating Committee can not tell an individual trade association what to do.

A Committee member asked if EPA will inform the Coordinating Committee if a recommendation is not acceptable. Fred Porter replied that EPA representatives on the Coordinating Committee and Work Groups will try to let the groups know as best they can what the Agency can accept. Ultimately, it will be an EPA management decision to act on recommendations and then inform the Coordinating Committee of the decision. Committee members stressed the importance of EPA representatives providing feedback and guidance as early as possible so the Coordinating Committee does not pursue a direction that will not be acceptable to EPA.

3.0 INFORMATION COLLECTION PLAN

3.1 Status of Database

Fred Porter of EPA reviewed the status of the ICCR databases. Population data from State electronic databases will be added to the AIRS/OTAG database at the end of this month and will be released for Coordinating Committee and Work Group use by mid April. Test data from STIRS are being input into a separate emission database and will be released by May 1. Fred emphasized that the databases are a starting point for each Work Group and that Source Work Groups are expected to quality assure and improve the databases. For example, Work Group members will want to perform the following activities with the population database:

- sort the database and view individual entries to determine if some units are misclassified (e.g., the process heater database may contain some boilers). If a unit is misclassified, it should be called to the attention of the EPA Work Group co-chair so EPA's contractors can correct it.
- look for errors, for example unit sizes that are not believable, and plan how to address and correct these.

- begin manipulating the data for use in population characterization and model plant development. Determine if Work Group members want to supplement the database by using company or trade association databases or market research studies.
- look at the emission column of the inventory database to see if any are based on test data and try to obtain the test reports.

Source Work Groups, with advice from the Testing and Monitoring Protocol Work Group, will need to review the quality of test data in the STIRS database for use in regulatory development, and may collect more test data.

The ICCR timeline requires completion of information collection and compilation by the end of this fiscal year (September, 1997). Any information to supplement the database must be given to EPA in August in electronic format compatible with Microsoft Access 2.0 and with the fields and structure of the ICCR database.

3.2 Information Collection Plan

Dick Van Frank presented a report from the Ad Hoc Information Collection Subgroup. His presentation is included in Attachment 4. At the January 8 and 9, 1997, meeting the Coordinating Committee established the subgroup to develop an information collection survey and determine how to select survey recipients. The subgroup was required to complete its activities by February 15, consistent with the Industrial-Commercial Waste Incineration (ICWI) litigation schedule. The subgroup was empowered to make decisions necessary to carry out this task.

The Ad Hoc Information Collection Subgroup met on January 22 and 23 (see meeting minutes in attachment 4). It was determined that the ICCR database (containing EPA and State data) could be used to provide information to characterize the population of sources and develop model plants. The survey would target those

sources for which sufficient information was not available-- specifically nonfossil fuel and waste-fired boilers, incinerators, and process heaters. The Subgroup established a task group to develop the questionnaire and recommend which sources in the ICCR database to survey.

The task group met on February 13, developed the survey, and submitted it to the Source Work Group and the Ad Hoc Information Collection Subgroup for review. Draft instructions were also developed. The Subgroup discussed and further revised the survey form in a conference call on March 3. The survey will be sent out by EPA under section 114 authority. A date of March 28 has been agreed upon with the litigants for initiating the mail-out of the survey.

The survey will be sent to all incinerators, boilers, and process heaters in the ICCR database that combust: commercial and industrial solid wastes, industrial sludge, municipal solid waste, soil, liquid waste, waste oil, landfill gas, some process gases, pathological waste, and wood. The survey would not be sent to units firing only: fossil fuels, bagasse, coke, process gases from the petrochemical industry, butane, propane, LPG, sewage sludge, and site remediation waste. There is sufficient information available from various sources that a survey is not needed for these types of fuels/wastes.

The survey and related materials were presented to the Coordinated Committee for their endorsement at the March 19 and 20 meeting. The Committee discussed the survey on March 19 and provided suggestions for minor revisions and clarifications to Norm Morrow and Dick Van Frank. They and EPA revised the survey and reported back to the Committee on March 20. The Coordinating Committee endorsed the survey. The final version of the survey and instructions, as approved by OMB on March 27, is included in attachment 5.

The March 19 Coordinating Committee discussion of the survey form and recipients is summarized here. An industry representative suggested that the survey should not cover landfill gas flares. Flares are used as control devices to meet the landfill NSPS and emission guidelines and could be covered under the landfill gas MACT project. The landfills project might be a better forum to consider the specific emissions and trade-offs for landfill controls. Others explained that the Incinerator Work Group was concerned about a lack of information on landfill gas flares and viewed the survey as a good opportunity to collect data. Furthermore, the ICCR will cover turbines and engines combusting landfill gas, so it may make sense to cover flares as well. After the data are collected, the Work Group and Coordinating Committee can recommend whether to include landfill gas flares in the ICCR or under a separate landfills project. Fred Porter clarified that the fact that a combustion unit is used as a control device does not, in itself, exclude the unit from the ICCR.

Greg Adams noted that there are over 40 test reports from California on landfill gas combustion, including about 10 with dioxin data. EPA has these for an AP-42 revision project. Mr. Adams also noted that the ICCR database does not contain many municipalities. In order to collect landfill data, the mailing list would need to be expanded.

A representative asked why the survey would be sent to soil treatment but not site remediation facilities. Norm Morrow and Dick Van Frank replied that site remediation deals with hazardous waste. If the combustor is burning hazardous waste it is subject to RCRA subtitle C rather than the ICCR and will not be sent a survey. Combustion of soil that is not classified as hazardous waste will be covered by the survey.

There were some suggestions for clarifying specific definitions in the instructions. For example, the word

"exporting" in the boiler definition might imply that energy has to be exported off-site for a unit to be considered a boiler, which was not the intent. The definition was revised in response to this concern. There was also some discussion of whether certain types of units should be process heaters or boilers. The discussion did not impact the general definition of process heaters and boilers for purposes of the survey, but definitions will need to be refined during regulatory development.

It was suggested that the question that asks whether operation is seasonal should also ask during which seasons the unit operates. This revision was incorporated. Coordinating Committee members who are knowledgeable on landfills flares suggested revisions to the check-boxes for possible flare designs. These were incorporated. Minor changes to the design capacity units were suggested and incorporated. A few key words in the questions and instructions were bolded to call attention to them.

In response to a request, EPA agreed to post the list of survey recipients from the ICCR AIRS/OTAG database on the TTN by Friday, March 21, for review by interested parties. Address corrections must be e-mailed to EPA by Wednesday, March 26. Deletions from the list will not be accepted. The alert posted to the TTN with the list will provide specific instructions for how to submit address corrections to EPA.

4.0 PROCESS HEATER WORK GROUP REPORT AND COORDINATING COMMITTEE DIRECTION TO THE WORK GROUP

4.1 Work Group Recommendations

John Ogle presented recommendations from the Process Heater Work Group using the March 12 memorandum (attachment 6). The attachment shows six recommendations and provides background information. One recommendation of the Work Group is to focus on indirect-fired heaters. Indirect-fired heater emissions are

composed entirely of the products of combustion. They are used in a variety of industries, but their design is fairly consistent. They are appropriately considered under a combustion MACT standard (the ICCR). Direct-fired process heater emissions consist not only of products of combustion but also of emissions directly related to the process unit or material. Their design and emissions are very specific to an individual industry and application. Many of the direct-fired heaters are already included in specific source categories scheduled for development of MACT standards. To avoid dual coverage and duplicative effort, the Work Group recommends that process heaters covered by other MACT standards should not be covered by the ICCR.

The Process Heater Work Group sorted the heaters in the ICCR database into five tables, as shown in the attachment:

- Table 1. Process heaters recommended to remain in the ICCR for regulatory development (indirect-fired)
- Table 2. Process heaters recommended for coverage under another MACT standard (direct-fired)
- Table 3. Process heaters recommended for regulation by other means, but having no defined MACT (direct-fired)
- Table 4. Should be combined with Table 1.
- Table 5. Process heaters recommended for moving to another ICCR source category (i.e., boilers or incinerators)

4.2 Discussion and Public Comment

A Committee Member asked Mr. Ogle to clarify the Work Group recommendation regarding Table 3. The Work Group recommends that the Coordinating Committee ask EPA to examine other means for addressing these direct-fired units. A great deal of process-specific knowledge would be needed to develop rules for these units. Addressing them under the ICCR would add significant

complexity, time, and effort. A Work Group representative clarified that the Process Heater Work Group recommends using the survey for collecting information on direct- as well as indirect-fired units that combust waste. This data could be useful in determining where and how these Table 3 units should be addressed.

Another member of the Process Heater Work Group commented that dealing with direct-fired heaters would require process-specific detailed knowledge of each process and industry. A lot of additional people would need to be brought into the Work Group. The Work Group is currently composed of combustion experts in order to deal with pollutants that are products of combustion. Process experts would be needed to deal with direct-fired heaters. He noted that EPA generally covers sources that require industry-specific knowledge under MACT standards for the specific industry category. He sees this as a more efficient approach than covering direct-fired units under the ICCR.

One environmental representative suggested that the necessary expertise could be added to the Process Heater Work Group. Another environmental organization representative expressed the concern that the ICCR should not drop types of combustion units unless and until we know they are being covered sufficiently under other MACT standards. He suggested that the Committee could ask EPA if they plan to cover the specific types of direct-fired units elsewhere, get a good idea of where and when they will be addressed, and then decide whether or not to keep them in the ICCR effort. He agreed with the Process Heater Work Group recommendation to send the survey to both direct- and indirect-fired heaters. Another environmental organization representative added that another MACT standard may cover HAPs but may not address section 129 issues and criteria pollutants. Also, the other MACT efforts may not consider pollution prevention opportunities. An Environmental Justice

representative mentioned that perhaps the ICCR could handle all section 129 rules and the other MACT standards would handle section 112 rules. He noted that section 129 rules have other aspects, such as siting requirements, that should be addressed in a consistent manner.

A Process Heater Work Group member stated that the other MACT standards have the same laws and requirements as the ICCR efforts. The Committee should be confident that other MACT efforts will develop appropriate rules for toxics and will consider pollution prevention. Furthermore, the Process Heater Work Group recommends that the leads of other MACT standards be made aware that they would also need to address section 129 issues for waste-fired process heaters.

Fred Porter and Bill Maxwell, of EPA, indicated that EPA is open to recommendations that sources be addressed under a process-specific MACT rather than the ICCR. EPA would need to consider each case and decide whether to develop a separate standard or include it in the ICCR.

In response to a question on whether the Clean Air Act requires EPA to regulate combustion or process emissions, Mr. Porter replied that the Act requires MACT for listed source categories. The EPA/ESD is generally organized along industry groups who develop standards for each industry. The Combustion Group was established to deal with combustion units that look similar across many industries. The primary focus of the Combustion Group has been burning of fuels and wastes, not processes. But there are grey areas. The EPA has in the past handled grey areas case-by-case and determined where each source should be addressed. An EPA representative added that if there is not currently another MACT standard that could cover a certain type of direct-fired heater, there would need to be a solid rationale for why it should not be covered under the ICCR.

A Committee member noted that in looking at table 3 sources, many of them appear to be small area sources. For example, there are many metal heat treating sources that typically have 10 to 15 employees, would not be major sources of emissions, and are not co-located at major sources. He told the group that the State of Michigan requires only simplified permits for these types of sources because they are not viewed as a significant emission source. He speculated that the data collection may show that many table 3 sources are small.

In response to a question on whether criteria pollutants are considered in MACT standards development, Lesley Fraser of OGC responded that for waste-fired units where MACT standards are developed under section 129, EPA must consider the criteria pollutants PM, NO_x, SO₂, and lead, as well as specified HAPs, and has discretion to consider other pollutants. Fred Porter added that when MACT standards are developed under section 112, EPA considers other environmental impacts in addition to HAP emission reduction, and other factors as required by the Act. The environmental benefits of criteria pollutant control are considered in examining regulatory alternatives and making regulatory decisions.

During the Public Comment period, Jeff Shumaker commented that he had participated in other MACT regulatory development efforts. In each case he found that EPA looked thoroughly at the range of HAPs and also considered VOC and other criteria pollutant concerns.

Also during the public comment period, Leslye Fraser of OGC commented that OGC and the ESD Director will assure any group developing MACT standards also fulfills section 129 requirements if the sources combust waste. OGC's role is to assure that the Clean Air Act is followed so that all section 112 and 129 standards will be adequate, regardless of which source category it is part of or which group within ESD develops the rules.

Furthermore, under the residual risk requirements of both sections 112 and 129, EPA must look at risks after the MACT standards are implemented and will address concerns about risks that may remain. Ms. Fraser noted that, in her personal opinion, it would not be good to have one group develop a MACT standard under section 112 and another group (e.g., the ICCR) develop a section 129 standard for the same source. This would require two different sets of people to come up to speed on the industry.

4.3 Coordinating Committee Director to the process Heater Work Group

After discussion, the Coordinating Committee reached concurrence on the following direction to the Process Heater Work Group:

- The Process Heater Work Group should focus initially on indirect-fired process heaters, as shown on table 1. However, as recommended by the Work Group, the section 114 survey of non-fossil fuel/waste-fired units should be used to collect information on indirect as well as direct-fired heaters.
- For process heaters on table 2 (direct-fired units potentially covered by ongoing MACT standards), the EPA co-chair should talk with the EPA Project Officers for the other MACT standards. The EPA should report back to the Coordinating Committee on whether these other MACT efforts will cover associated process heaters and whether they will address section 129 (if waste-fired), and/or criteria pollutant concerns, as well as section 112 HAPs.
- For process heaters on table 3, EPA should look into whether any of these are likely to be covered under other regulatory development efforts that consider HAPs, section 129, and criteria pollutants.
- For process heaters on table 3 that EPA does not currently plan to cover elsewhere, the Process Heater Work Group should begin to develop specific rationales and recommendations to the Coordinating Committee for whether or not each type of unit should be covered

under the ICCR. For those direct-fired heaters likely to be included in the ICCR, the Work Group should begin to develop a plan for how to include them in the ICCR. Specific concerns that should be addressed include the material being combusted, population and emission data, and environmental and health impacts.

5.0 STATIONARY COMBUSTION TURBINE WORK GROUP REPORT AND COORDINATING COMMITTEE DISCUSSION

5.1 Work Group Report

Mr. Ted Guth presented a status report from the Stationary Combustion Turbine Work Group and raised issues on which the Work Group requests advice from the Coordinating Committee. His presentation is included as Attachment 7. Based on the information currently available, the MACT floor for existing turbines appears to be "no control." The Work Group is investigating possible control technologies that could be considered as regulatory options above the floor. Little HAP emissions data are available, and there appear to be pollutant trade-offs (some criteria pollutant controls may increase HAP emissions). Testing will be needed to evaluate HAP emission reduction performance of potential controls.

The Turbine Work Group requested Coordinating Committee advice on three issues:

1. If MACT for existing turbines is determined to be "no control," how should the statutory requirements to establish a standard be fulfilled (so each State does not have to develop standards under section 112(j) of the Clean Air Act)?
2. If technology reduces HAPs at the expense of criteria pollutants or vice-versa, how to prioritize and incorporate in the MACT floor determination?
3. If source test costs are high (i.e., a lot more than the funds allocated) how can we leverage costs so that all needed testing can be done? Are priority testing

decisions among source categories needed to allocate testing resources?

5.2 Discussion

5.2.1 MACT Floor and MACT. A State agency representative expressed concern with the tentative conclusion that the MACT floor appears to be "no control." He commented that it may be no add-on control, but that the Work Group should consider whether there are low CO combustor designs and operating practices in place that reduce HAPs and should be part of the MACT floor. Sims Roy of EPA stated that it is hard to know how to develop a regulation for operating practices given the wide range in turbine designs and uses. He stated that with regard to combustion controls, the Work Group is considering techniques like combustion catalysts in the turbine that may reduce multiple pollutants. The Work Group is still determining whether there may be a MACT floor for some subcategories and a no control floor for other subcategories. He also mentioned that manufacturers may be doing HAP testing as they install new units, which may provide some data.

An environmental organization representative stated that independent power producers (IPPs) are a subcategory of concern because many new turbines are being put into service at IPPs and they tend to be located near populations. He suggested that opportunities for pollution prevention and reducing energy demand should be considered in developing MACT standards. He said that pricing strategies for peak and off-peak periods can influence operating rates and could, therefore, be considered a control.

An industry representative commented that a "no-control" MACT floor does not necessarily mean no standard. Standards can be set above the floor and can be based on operating practices or a number of other things, such that there can still be standards and there will be no section 112(j) problem.

Leslye Fraser, of OGC stated that the issue of whether 112(j) is triggered if EPA looks at a source category but does not set a standard has not yet been encountered and would need to be discussed within OGC. Personally, she could think of various options such as setting a numerical limit that can be met without controls or setting operating or other standards. Alternatively, if EPA investigated a source category and issued a Federal Register notice about why a standard was not being set, 112(j) might not be triggered. OGC would need to investigate this. However, Leslye did not believe it is appropriate for OGC to give any official answer at this time because the issue is still theoretical. OGC would need to consider the specifics of an actual case before they could reach a decision.

Sims Roy clarified that the Turbine Work Group has not reached a conclusion that MACT is no control. They intend to do a lot more work looking into control techniques and testing to gather HAP emission reduction data. The Work Group just wanted to raise the issue to alert the Coordinating Committee of the possibility that MACT might be no control for a category or subcategory of sources and to begin considering the implications.

An environmental organization representative said he would be concerned if there are many source categories for which the ICCR concludes there is no better control than the current level. He noted that technology has improved over time and can be pushed. Economic incentives (e.g., emission based fees) could be considered. To him, knowing which sources are causing the greatest health risks is critical.

5.2.2 Pollutant trade-offs. A committee member asked if the Turbine Work Group representatives could elaborate more on the trade-offs between criteria pollutants and HAPs. The Work Group representatives stated that temperature plays a role in emissions. If you lower temperature to reduce NO_x emissions,

this will favor incomplete combustion and can lead to higher emissions of CO and potentially higher formaldehyde emissions. Emissions of some organic HAPs tend to follow CO emissions although it is not a precise correlation. Recently, CO oxidizers have been installed on about 150 turbines, many at IPPs. These turbines have stringent control requirements for NO_x and use selective catalytic reduction (SCR) to reduce NO_x to very low levels; but because of this, the turbines have increased CO emissions. Therefore, about 70 percent of the turbines with SCR have also installed CO oxidizers. A Work Group member speculated that if NO_x control was not pushed to quite such low levels, CO could be much lower. One committee member knew of a case where reducing NO_x from 42 to 25 ppm increased CO emissions 10-fold.

A committee member agreed that in his experience lower temperatures will tend to increase hydrocarbon emissions. He stated that the same general trade-offs are likely to affect other source categories. This could be a greater problem for source categories that combust waste because dioxin and other pollutants could be emitted. An industry representative noted that temperature in the furnace and in the control device are both important for dioxin emissions.

Another committee member mentioned that the Ozone Transport Assessment Group (OTAG) will be making recommendations to EPA on NO_x from a large range of combustion units. These recommendations will be important to the ICCR because of the relationship between NO_x control and other pollutants.

Environmental organization representatives said that the Committee must keep public health in mind. We must explore the relationships among HAPs and criteria pollutants, and consider the toxicity of HAPs and criteria pollutant impacts in order to make informed trade-offs. Another Committee member clarified that both short and long-term health impacts should be considered. Another stated that PM_{2.5} is a significant health

concern and some of the PM_{2.5} is NO_x and SO₂, so it is important to consider health impacts of criteria pollutants as well as HAPs.

Committee members asked if EPA could provide information on toxicity. Sims Roy of EPA stated that test reports from California show 13 different HAPs that appear in many tests. He plans to give them to EPA's health risk staff to get their input on relative potency. Another Committee member informed the group that EPA has published monographs on health risks for several HAPs. Fred Porter agreed to look into health effects information and HAP priority lists that EPA has developed and let Committee members know how to obtain them.

Several members expressed the opinion that the Coordinating Committee cannot provide the Turbine Work Group specific feedback on how to consider pollutant trade-offs at this time. It is not possible to decide in general how to balance NO_x, other criteria pollutants, and HAPs with the available information. The group would need the specifics of each case in order to assess the trade-offs and make appropriate recommendations.

5.2.3 Emission Testing. Sims Roy mentioned that there will be a need to prioritize emission testing so that the available funds can be used wisely. Farhana Mohammed volunteered that the Testing and Monitoring Protocol (TMP) Work Group can provide input and review of Source Work Group test proposals and cost estimates. If CARB 430 can be used instead of FTIR, this would reduce costs. The Testing and Monitoring Protocol Work Group is looking into this method and NO_x correction factors. Also, the TMP Work Group is developing lists of HAPs that have been found in previous combustion testing or would be expected based on the chemistry and for which test methods are available. Another PEA representative noted that there lists along with priority HAP

lists that are being developed based on health impacts may help narrow the focus and scope of testing.

A Committee member suggested that testing funds should be spent where the greatest environmental and health threat exists. He suggested looking at the HAP data that already exists for various types of combustion units and then deciding where to spend testing funds. Another member commented that the location of facilities is important in determining health risks, so testing might focus on the types of units that tend to be located in urban areas. Trends in use could help determine testing priorities. Other members expressed agreement that some type of prioritization will be needed. Both EPA and industry representative commented that other Work Groups may have units that cause more health threat than turbines. Fred Porter noted that in his personal opinion, incinerators are likely to need a lot of testing, particularly since many are located at small sources that have not tested in the past and will not be able to afford testing. A few members commented that to prioritize use of test funds, it would be useful to consider the data gaps and known information about HAP emissions and health impacts from all five combustion source categories.

A Coordinating Committee member asked how much funding EPA has for testing and whether sources could pay for some of the testing. He also asked whether sources would pay for testing voluntarily and whether EPA can require sources to conduct and pay for emission tests under section 114 of the Clean Air Act.

Fred Porter replied that EPA has set aside about \$1 million this fiscal year for source testing. This is 2-year funding so it could be spent in FY 98 if it is not all used in FY 97. However, if it appears that the money will not be spent, other groups may need it. It is likely that some additional funding could become available in future years, but the amount is not known. The amount will depend on the EPA budget and on the

relative testing needs of various projects within EPA. The Combustion Group will need to provide their management an indication of testing needs and estimated cost for the budget allocation process. In response to the second question, Mr. Porter stated that EPA has authority under section 114 to require a source to conduct testing, and EPA does not pay for it. To his knowledge, OAQPS has never used this authority, but an EPA regional office has recently used this authority. EPA would be open to suggestions from the Committee on whether and how this authority should be used on the ICCR project.

A Committee member clarified that the Work Groups and Coordinating Committee cannot authorize expenditure of EPA funds. The Coordinating Committee can only make recommendations to EPA. EPA representatives agreed.

A question was asked about how long it would take to select a contractor and perform a test. Mr. Porter replied that EPA has 3 to 5-year contracts in place with a few testing contractors. They would issue a work assignment for a specific test to one of these contractors. The test could be completed in 4 to 5 months. A Committee member asked if EPA could make the list of test contractors available to the Coordinating Committee and Work Groups. Mr. Porter replied that the information is public.

At the close of this discussion, the Coordinating Committee encouraged all Work Groups to begin identifying their testing needs, the rationale for these tests, potential timing of testing, and potential sources of resources. The Work Groups are encouraged to bring their testing recommendations forward at future Coordinating Committee meetings.

Many Committee members felt that the Turbine Work Group should not begin testing at this time until priorities can be considered. There was some discussion as to whether the Coordinating Committee should form an ad hoc subgroup to consider testing needs and priorities. However, because the Work Groups

require more time to determine potential testing needs and the specific activities and role of a subgroup were unclear, it was decided not to form a subgroup at this time.

6.0 OTHER WORK GROUP REPORTS, DISCUSSION, AND PUBLIC COMMENT

There were brief discussions regarding the status and activities of the Boiler Work Group, Internal Combustion (IC) Engine Work Group, and TMP Work Group.

6.1 Boilers Work Group

Jim Stumbar presented a status report from the Boiler Work Group (attachment 8). While the report noted an area of disagreement regarding the inclusion of residential and commercial hot water heaters in the ICCR, Mr. Stumbar clarified that the Work Group plans to discuss this issue further and is not asking for a Coordinating Committee decision at this meeting. One Committee member suggested perhaps the Work Group could consider a size cutoff that would exclude very small residential natural gas-fired and distillate oil-fired hot water heaters, but would include larger commercial hot water heaters.

Regarding the task of the boiler ad hoc group to review State regulations, a Committee member commented that the group should look for regulations on boiler operation as well as emission limits.

6.2 Internal Combustion Engines Work Group

Vick Newsom stated that the IC Engines Work Group has agreed to initially start using EPA's database. The Work Group will review the database, remove misclassified units, and begin addressing the potential MACT floor for the category as a whole. The Work Group will then start looking at control of different types of engines, whether subcategories are needed, and how this

will change the MACT floor. The group will then begin addressing emissions data. If there appears to be a need, the Work Group could meld some additional trade association databases into the EPA's ICCR database by June. Jed Mandel commented that the Work Group may determine additional trade association data would be useful.

6.3 Testing and Monitoring Protocol Work Group and Emission Data Quality

The current activities of the Testing and Monitoring Protocol (TMP) Work Group with regard to data quality were discussed. In response to requests at the November joint Work Group meetings, and as discussed at the January Coordinating Committee meeting, the TMP Work Group is developing guidance to be given to Source Work Groups for their consideration. In particular, the TMP Work Group has undertaken activities to recommend lists of which of the 189 HAPs to focus on for each combustion unit source category, along with rationales. The TMP Work Group is also developing guidance on how to handle non-detects and can develop guidance on the adequacy of various test methods used to collect emissions data. This input from the TMP Work Group can be considered by Source Work Groups in reviewing and using emission data.

A Coordinating Committee member asked what factors the TMP Work Group is considering in developing the HAP lists. Farhana Mohamed replied that in determining whether to include each of the 189 compounds on the list for each source category, they are considering:

- which HAPs have been detected in previous testing and monitoring of combustion sources,
- which HAPs would be expected/not expected to be emitted based on the chemistry of the combustion process and the fuels combusted,
- information from the scientific literature, and

- for which HAPs test methods are available.

The TMP Work Group will document specific reasons for each compound that is excluded. Fred Porter added that Source Work Groups can use the TMP Work Group lists along with other available information (for example lists based on health effects information) in determining testing needs and priorities.

An environmental organization representative asked why criteria pollutants are not being included on the lists. Ms. Mohamed replied that the TMP Work Group is focussing on HAPs because that is the area where additional guidance is needed. The EPA already has well established test methods for criteria pollutants such as PM, fine PM, SO₂, and NO_x. The Work Groups already know that these pollutants are emitted and how to test for them. Committee members stated that the Work Groups should consider criteria pollutants in developing regulations.

The Committee discussed the role of the TMP Work Group, the Source Work Groups, and the Coordinating Committee, with regard to assuring the quality of emission test data. One Committee member stated that close communication is needed between the Coordinating Committee and the TMP Work Group, and that the Committee would be interested in seeing the content of the guidance the TMP Work Group gives to the Source Work Groups. He also expressed concern that a Source Work Group could unilaterally choose not to follow the TMP Work Group's guidance, and suggested that there should be dialog to reach decisions.

Fred Porter commented that in developing the organizational structure for the ICCR, as reflected in the ICCR document, the TMP Work Group was created as a service or support Work Group to provide the benefit of their testing and monitoring expertise and advice to the Source Work Groups. It is the individual Source Work Groups' responsibility to review the available data for their source categories, determine what testing is needed, and eventually develop recommendations for emission limits and/or

other regulatory requirements. The Source Work Groups and TMP Work Group have been communicating, and the TMP Work Group has undertaken the activities previously described in response to Source Work Group requests. While the Source Work Groups can make their own determinations, as a practical matter, it is expected that TMP Work Group guidance will be adopted by the Source Work Groups.

Furthermore, the ICCR organizational structure provides checks and balances. The Source Work Groups must bring their recommendations to the Coordinating Committee along with sufficient rationale, before any recommendations are made to EPA. Furthermore, the stakeholder co-chairs of the TMP Work Group as well as the Source Work Groups are in the Coordinating Committee, so if there is disagreement between Work Groups, it would be raised by the co-chairs to the Committee. Both Marvin Shore and Rich Anderson, who were members of the transition group that recommended the ICCR organizational structure agreed with Mr. Porter's description of the Work Group roles and organizational structure.

Committee members expressed, and Mr. Porter agreed, that communication among the TMP Work Group, Source Work Groups, and Coordinating Committee must be frequent and ongoing. A member pointed out that, for example, they would not want a Source work Group to move forward a long way in handling non-detects and performing data analyses, come to the Coordinating Committee with recommendations, and then have the committee raise an inconsistency or problem with how non-detects were handled. It was noted that the guidance provided by the TMP Work Group on non-detects and other issues will be posted on the TTN and alerts can be sent to Coordinating Committee and Work Group members when the guidance is posted. Communications among the TMP Work Group, the Source Work Groups, and the Coordinated Committee are strongly encouraged with regard to the guidance materials and

other issues on testing and monitoring, emission data review, and data quality. Meetings, the TTN, and E-mail are all avenues for this communication.

6.4 Public Comment

Katherine Kemp, who represents a local citizens group, spoke during the public comment period. She emphasized the importance of the work the Committee and the ICCR project is doing and the effect the regulations will have on citizens who are facing real environmental issues. She said that citizens are concerned with the number of small power cogeneration plants being built close to where large numbers of people live. She stated that industrial boilers burning materials like treated wood and tires seem to be going into poor minority communities. She cited a local example where a developer claimed a combustion facility would provide more jobs than it actually did and would follow "stringent EPA rules", when there really were no EPA air rules that applied to the combustor. She asked the Committee to consider the very real concerns of local citizens in developing the regulations for combustion units.

Mr. Porter encouraged Ms. Kemp and others to contact the Coordinating Committee members who can represent the interests of local environmental organizations and environmental justice groups, so that they can bring their concerns to the table. He also suggested following the project on the TTN, but Ms. Kemp responded that some local groups do not have computer capabilities or do not know how to access the TTN.

Alex Johnson commented that he is impressed with the amount of information that has been collected and research that has been done by local groups like the one Ms. Kemp belongs to. He said that it is important that such information be brought to the Work Groups and Coordinating Committee for use in the ICCR project. Mr. Johnson also acknowledged that it will be a challenge for

himself and the other environmental interest representatives to communicate with the variety of groups and bring their information to the table. Committee members thanked Ms. Kemp for her input.

7.0 SELECTION OF STAKEHOLDER CO-CHAIR

John Huyler, of the Keystone Center, reviewed the duties of the Coordinating Committee stakeholder co-chair and identified Coordinating Committee members who expressed willingness to serve in this role. The responsibilities include:

1. Help the EPA co-chair and facilitator establish meeting agendas and perform other administrative functions,
2. Consult with the EPA co-chair, and determine whether issues should be raised to EPA management for decisions if consensus does not appear likely, and
3. With the EPA co-chair, make presumptive decisions on requests for non-members to sit "at the table" for Coordinating Committee meetings.

Mr. Huyler reminded the Committee that Stakeholder co-chairs are selected for a term of one year. It was decided that the term of the first stakeholder will end at the end of FY 97 (September 30, 1997). Mr. Huyler suggested that the Committee select the stakeholder co-chair by consensus.

The Coordinating Committee reached consensus on Rich Anderson as stakeholder co-chair for a term lasting until September 30, 1997. There was also some discussion as to whether a small group should be formed to assist the EPA and stakeholder co-chairs, but no decision was reached.

Some members felt that a small group consisting of an industry representative, an environmental organization representative, the EPA and stakeholder co-chairs, and the facilitator would be useful in developing meeting agendas. Such a group would provide someone for the co-chairs to bounce ideas

off. It would also help assure that all appropriate agenda topics were identified and organized in a manner that would allow for productive discussion at meetings.

Others felt that there is no need for a small group. They felt that the co-chairs and facilitator can set the agendas without a small group and are free to circulate drafts or contact other members of the committee if they need input. A small group might create an extra layer of bureaucracy that is not needed. One member suggested that before a small group is formed, the Committee needs to consider what its specific duties would be, whether it is needed, and who should be on it. Another pointed out that a State and local agency representative might want to be included to provide a balance of stakeholder interests.

The discussion was concluded by the facilitator's suggestion that a small group not be formed at this time, but any member who has an organizational proposal should bring it before the Coordinating Committee at future meetings.

8.0 BUDGET SUBGROUP REPORT

Greg Adams presented a report from the budget subgroup (attachment 9). At the January Coordinating Committee meeting, it appeared there would be a budget shortfall. An Ad-hoc Budget Subgroup was established to examine the ICCR budget and provide recommendations about how to proceed with the ICCR efforts in a manner that is scientifically sound and matches the project budget. Mr. Adams reported that since that time, the Information Collection Subgroup had better targeted the information collection plan and developed a shorter survey. As a result, the budget need for information collection is lower than presented at the January meeting and the projected shortfall is much smaller. Total estimated expenditures for FY 97 are \$2,435 million vs. an EPA budget of \$2.3 million. (Neither of these figures include

source testing, which comes out of a separate budget). Greg noted that the subgroup members agree the projected expenses are reasonable and well documented.

The Coordinating Committee discussed ideas for reducing the projected budget shortfall. The Coordinating Committee decided not to pursue the suggestion to charge a voluntary registration fee for meetings. The Coordinating Committee suggested that participants could contribute to the ICCR effort by providing meeting rooms and A/V equipment, and performing meeting administrative activities. The possibility of finding other sources for funding environmental group travel was also suggested. Leslye Fraser of OGC stated that she is looking into potential legal restrictions that might prohibit stakeholders from paying for meeting costs. Various laws prohibit EPA from soliciting funds, and Leslye needs to determine how they apply to the ICCR.

9.0 NEXT MEETINGS AND FUTURE AGENDA ITEMS

The Committee discussed and agreed to a suggestion to hold the next few meetings on Tuesday and Wednesday. This will allow Work Groups the opportunity to meet the Thursday after the Coordinating Committee meeting (if they so desire) to begin implementing any guidance or direction from the Coordinating Committee.

The next meetings are scheduled for:

- Tuesday and Wednesday May 20-21 at the Regal University Center in Durham, NC. [NOTE: Since the meeting, it was determined that the agenda could be accomplished in one day. The meeting is Wednesday May 21, and a MACT floor primer will be presented that evening.]
- Tuesday and Wednesday, July 22-23 in Long Beach, CA, at a location identified by Miriam Lev-On.
- Tuesday and Wednesday, September 16-17, in RTP, NC

- Tuesday and Wednesday, November 18-19 in the Houston, TX area at a location to be identified by Norm Morrow.

Work Group co-chairs should inform ERG as soon as possible if they would like to meet on the Thursday after each of these meetings.

Agenda items for the May meeting include "parking lot" issues that have been raised at previous meetings but not discussed. One of these is a presentation on the urban air toxics and great waters programs and discussion of how these may relate to the ICCR. The meeting agenda will also include updates on the ICCR inventory database and emission test database and discussion of guidance for review of these databases. The revised ICR document will also be discussed. The Group of Six will revise the document to reflect changes discussed at the January meeting and post it on the TTN before the May meeting. Fred Porter will also report back on his findings regarding the status of various EPA HAP priority lists and health effects information mentioned during the discussions.

A question was raised on whether training in the use of Microsoft Access could be provided (the ICCR databases are in Access). Fred Porter agreed to try to locate a firm in RTP, NC that would provide Access training using the ICCR database and let Coordinating Committee and Work Group members know if it is available. There was also a suggestion that perhaps a knowledgeable Work Group member could provide the training. A trade association may also look into training possibilities.

ATTACHMENT 1

INDUSTRIAL COMBUSTION COORDINATED RULEMAKING

DRAFT AGENDA

MARCH 19-20, 1997

Industrial Combustion Coordinated Rulemaking

Draft Agenda

March 19-20, 1997

Hotel Intercontinental

505 North Michigan Avenue

Chicago, Illinois

March 19, 1997

- 9:30 a.m. Welcome and Agenda Review (Todd Barker, John Huyler, and Fred Porter)
- 9:45 a.m. Update and Status of EPA Database (Fred Porter)
- 10:00 a.m. Overview of the Relationship Between the ICCR and EPA (Fred Porter)
- 10:15 a.m. Information Collection Request (Dick VanFrank and Norm Morrow)

The Information Collection Request Subgroup was empowered by the CC to develop and finalize recommendations to EPA regarding an ICR. The Subgroup will summarize these recommendations and answer questions. Although the CC empowered the Subgroup to develop and finalize these recommendations, the CC will be asked to endorse these recommendations.

- 11:15 a.m. Break

11:30 a.m. Opportunity to Ask Workgroup Stakeholder Co-Chairs
About Their Status Reports

- Based on the recommendations in the
 "Improving CC Meeting" memorandum, we have
 asked Workgroups to prepare a written summary
 of their status as way of limiting formal
 presentations. This period of time is an
 opportunity for CC members to direct any
 questions they may have from reading these
 reports to the Workgroup Stakeholder Co-
 Chairs (or Workgroup representatives, where a
 Stakeholder Co-Chair has not been nominated
 for membership on the CC). Where it is not
 possible for a Workgroup to post a status
 report to the TTN in advance, the Workgroup
 Stakeholder Co-Chair or representative will
 be provided an opportunity to briefly review
 the status of the activities within a
 Workgroup.

12:15 p.m. Lunch

1:30 p.m. Public Comment

2:00 p.m. Workgroup Related Issues - "Workgroup Scope"

- The Process Heaters Workgroup will review
 materials related to the scope of rulemaking
 activity for process heaters and will present
 several recommendations to the CC.

3:30 p.m. Break

3:45 p.m. Public Comment

4:15 p.m. Workgroup Related Issues - "Workgroup Scope"
(continued)

5:00 p.m. Adjourn*

* From 6:30 p.m. to 9:30 p.m. the Economic Analysis Workgroup will present an Economic Methods Primer that is open to all ICCR members and other interested parties. Please see the cover memorandum for more information. Participation from non-Economic Workgroup members is encouraged.

March 20, 1997

8:00 a.m. Workgroup Related Issues - MACT Floor and
Emissions Testing

- The Gas Turbines Workgroup will review information related to determining the MACT floor for existing gas turbines.
- The Turbines Workgroup may soon be ready to undertake emissions testing and will highlight several issues under discussion within the Workgroup related to determining the number of tests to undertake and how to leverage resources within the ICCR process to support a potentially costly testing program.

10:30 a.m. Break

10:45 a.m. Public Comment

11:15 a.m. Discussion of ICCR Appendix D (Fred Porter)

- At the last CC meeting, EPA was asked to review their policy on public versus confidential information as well as the need for complete information on any source of data or information used in the regulatory development process. EPA will report the outcome of this review to the CC.

12:00 p.m. Lunch

1:15 p.m. Selection of Stakeholder Co-Chair

- If you are interested in serving as the stakeholder co-chair of the CC and have not discussed your interest with The Keystone Center, please call Todd Barker (970-468-5822) or John Huyler (303-444-4777) in advance of the meeting.

1:45 p.m. Public Comment

2:15 p.m. Improving CC Meetings

- Adopt recommendations for future meetings based on the "Improving CC Meetings" memorandum, our experience yesterday and today, and discussion among CC members.

2:45 p.m. Budget Subgroup (Greg Adams)

- The Budget Subgroup will summarize their conclusions following a review of the EPA budget projections and will present recommendations for discussion among CC members.

3:30 p.m. Break

3:45 p.m. Parking Lot Issues

- This time is being reserved for "parking lot" issues identified during the meeting.

4:30 p.m. Next Steps Including July "West Coast" Meeting

4:45 p.m. Adjourn

ATTACHMENT 2

LIST OF ATTENDEES

List of Attendees at the ICCR
Coordinating Committee Meeting
March 19, 1997
Chicago, IL

Greg Adams	Greg Gesell
Richard Anderson	Lee Gilmer
Todd Barker	Steve Hagle
Lisa Beal	Keith Harley
John Blair	William Heater
John Bloomer	Michael Hewett
Andrew Bodnarik	Peter Hill
Wendell Brough	Michael Horowitz
Gordon Brown	Tim Hunt
Mark Bryson	John Huyler
Mark Calmes	Alex Johnson
A.J. Cherian	Jim Jordan
Delbert Cline	Robert Kaufmann
Sam Clowney	Coleman Kavanagh
Linda Coerr	Charles Keffer
Linda Cooper	Dave Klemp
Gerald Doddington	Dennis Knisley
Donald Dowdall	Greg Kraft
A. Roxane Drayton	Pamela Lacey
Alexandra Dunn	Mary Lalley
Jim Eddinger	Arthur Lee
Paul Eisele	Miriam Lev-On
David Emery	Alison Ling
John Fanning	Joseph Mackell
Chuck Feerick	Jed Mandel
Bruno Ferraro	Dennis Marietta
Klane Forsgren	Neil Masterson
Tyler Fox	Bill Maxwell
Leslye Fraser	James McCarthy
Mike Gallagher	Diane McConkey
Steve Gerritson	Ruth Mead

Michael Milliet
Farhana Mohamed
Dave Montgomery
Robert Morris
Norman Morrow
Russell Mosher
Raimund Mueller
Elsie Munsell
Khalid Muslih
Gerald P. Napierala
Vick Newsom
William O'Sullivan
John Ogle
Lawrence Otwell
Robert Palzer
William Passie
John Paul
Stephen Phelps
Randy Poteet
Donald Price
Brahim Richani
Jeffrey Roop
Dennis H. Ross
Larry Runyan
Charles Schmidt
Marvin Schorr
James Seebold
Shirish Shimpi
Jeffrey Shumaker
George Smith
Jeffrey Smith
Michael Soots
Robert Stachowicz
James Stumbar
Karluss Thomas
Paul Tucker

Dick Van Frank
George Van Houtven
Ross Vincent
Bill Walker
Robert Welch

List of Attendees at the ICCR
Coordinating Committee Meeting
March 20, 1997
Chicago, IL

Greg Adams	Alex Johnson
Amanda Agnew	Jim Jordan
Richard Anderson	Robert Kaufmann
Todd Barker	Charles Keffer
Lisa Beal	John Klein
Gordon Brown	Dennis Knisley
Mark Bryson	Greg Kraft
Mark Calmes	Mary Lalley
Roy Carwile	Miriam Lev-On
A.J. Cherian	Alison Ling
Delbert Cline	Jed Mandel
Sam Clowney	Dennis Marietta
Linda Coerr	Neil Masterson
Stanton Coerr	Bill Maxwell
Linda Cooper	Ruth Mead
Gerald Doddington	James McCarthy
Donald Dowdall	Diane McConkey
Alexandra Dunn	Farhana Mohamed
Jim Eddinger	Dave Montgomery
Paul Eisele	Robert Morris
David Emery	Norman Morrow
John Fanning	Russell Mosher
Klane Forsgren	Elsie Munsell
Leslye Fraser	Khalid Muslih
Gordon Gaetke	Vick Newsom
Steve Gerritson	William O'Sullivan
Steve Hagle	John Ogle
Keith Harley	Peter Oppenheimer
Peter Hill	Robert Palzer
Tim Hunt	John Paul
John Huyler	Stephen Phelps

Fred Porter
Randy Poteet
Donald Price
Larry Runyan
Marvin Schorr
Gunseli Shareef
Jeffrey Shumaker
Jeffrey Smith
Robert Stachowicz
James Stumbar
Karluss Thomas
Dick Van Frank
Ross Vincent
Bill Walker
Robert Welch

ATTACHMENT 3

INDUSTRIAL COMBUSTION COORDINATED RULEMAKING
WORK GROUP MEMBERSHIP NOMINATIONS

INDUSTRIAL COMBUSTION COORDINATED RULEMAKING

Work Group Membership Nominations

Boiler Work Group

- None

Process Heater Work Group

- None

Incinerator Work Group

- Ruth Mahr (Citizens Concerned About Medical Waste Incineration)
- Raimund Müller (Siemens Power Corporation)
- Ross Ragland (United Group)

Stationary Internal Combustion Engine Work Group

- Bryan Willson (Colorado State University - INGAA)
- John Blair (Valley Watch)

Stationary Combustion Turbine Work Group*

- Raimund Müller (Siemens Power Corporation)
- J. Charles Solt (Catalytica)

Economic Analysis Work Group

- Keith Harley (Chicago Legal Clinic)

Testing and Monitoring Protocol Work Group

- None

*David Marrack, M.D. was approved at the Coordinating Committee meeting but later decided to remain on the Incinerator Work Group instead.

INDUSTRIAL COMBUSTION COORDINATED RULEMAKING

Work Group Membership Nominations - Alternates

Boiler Work Group

- Member: Frank Ferraro

Alternate: Richard Anderson

Process Heater Work Group

- Member: Jim Seebold

Alternate: Janet Peargin

Incinerator Work Group

- Member: Paul Rahill

Alternate: Dale Walter

- Member: Ross Ragland

Alternate: Brian Dittberger

Stationary Internal Combustion Engine Work Group

- None

Stationary Combustion Turbine Work Group

- None

Economic Analysis Work Group

- None

Testing and Monitoring Protocol Work Group

- None

INDUSTRIAL COMBUSTION COORDINATED RULEMAKING

Work Group Membership Withdrawals

Economic Analysis Work Group

- Dick Van Frank (Audubon Society)

ATTACHMENT 4

INFORMATION COLLECTION SUBGROUP REPORT

At the January Coordinating Committee (CC) meeting information was presented by the EPA and Alpha Gamma on the existing data bases and the information collection problem was discussed. This effort driven both by the ICWI litigation and by the Clean Air Act. The timeline in section 6 of the ICCR document shows that, to meet the statutory deadline of the year 2000, information must be collected in the time frame presented. Fred Porter emphasized the importance of meeting the overall schedule the EPA has prepared.

After considerable discussion the decision was made to appoint a subgroup. The Subgroup was empowered to make decisions necessary to carry out the above tasks and shall complete the effort by February 15, 1997

The following persons were appointed to the subgroup:

Boilers - John deRuyter / Mike Soots
Process Heaters - Lee Gilmer / John Ogle
Incinerators - Norm Morrow / Joe Tessitore
Turbines - Sam Allen / Marvin Schorr
IC Engines - Sam Clowney / Amanda Agnew (EPA)
EPA - Fred Porter
Environmental - Dick Van Frank / Bob Palzer
State - Steve Gerritson
Local Government - Greg Adams
EPA Contractors - Ruth Mead / Brahim Richani

The subgroup rapidly organized and scheduled teleconference for Friday, January 17, They also scheduled a meeting for, January 22 and 23, at RTP.

The goals of the Subgroup were:

Review/integrate Source Work Group and Trade association surveys
Review/discuss merits of EPA approach for surveying SIC groups

Develop recommendations to ensure EPA/Source Work Group surveys do not overlap
Trade Association surveys
Consider alternative approaches for surveying SIC groups
Consider alternatives to surveys, such as use of the existing EPA database only and
assumptions/judgments to fill gaps in this database
Consider possible integration of the existing EPA database and surveys
Develop options for generating information (e.g., surveys only; some surveys - some
existing EPA database; existing EPA database only)
Develop recommendations for the Coordinating Committee - Budget Subgroup and the
full Coordinating Committee to consider

At the January meeting the subgroup discussed the EPA data base and the plan to add data from 23 states. The original proposal to use the Dunn and Bradstreet address data base and to sent as many as 35,000 questionnaires was also reviewed. Fred Porter reviewed the budget situation and the possible shortfall of about \$1M. It appeared that the addition of the state data would fill in gaps in the EPA data base. After further discussion it was decided that the augmented EPA data base would be used and the survey would be target those sources where sufficient population data were not available. It should be pointed out that this decision was not budget driven; the subgroup believed the required information could be obtained without using the Dunn & Bradstreet data base approach.

The subgroup agreed to use the EPA/state database to identify incinerators, waste boilers and process heaters. The subgroup agreed that expertise from the Work Groups could be used to determine if there are any industries or type of incinerators, or waste boilers or process heaters that are missing from the database.

The subgroup charged the Incinerator Work Group to take the lead in establishing a taskgroup to:

Develop a questionnaire to survey waste-fired boilers, incinerators, and process heaters, and

Recommend which sources in the ICCR data base to sample to fill data gaps for the various types of wastes and industries.

This taskgroup was composed of 2 to 4 members each selected by the incinerator, boilers and process heater Work Group, and others as needed to achieve balance.

The task group consisted of the following:

David Cooper	Bob Palzer
Jim Eddinger	Paul Rahill
Bruno Ferraro	Andy Roth
Mike Gallaher	Kay Rykowski
Lee Gilmer	Mike Soots
Michael Hewitt	Jim Stumbar
Mary Lalley	Joe Tessitore
Dennis Marietta	Dale Walter
Ruth Mead	

The subgroup agreed to have one of the questions on the survey that asks a broad question regarding whether the facility has any HAP test data from any combustion source at the facility.

The taskgroup submitted the recommended survey to the Source Work Groups for review. After changes have been made based on Source Work Group comments, the subgroup on data collection reviewed the survey.

The subgroup recommended that the Process Heater Work Group review the sufficiency of the EPA database for process heaters. Assuming further information is needed, the subgroup agreed to recommend to the Process Heater Work Group to encourage CMA, API, and the pulp and paper industry to develop information for their industries for process heaters. This recommendation was based on the general belief by the subgroup that classic process heaters are primarily in the petroleum refining, chemical, and pulp and paper industries.

For each other types of possible process heaters, the subgroup recommends the Process Heater Work Group continue their effort to determine whether each SCC has been or is planned to be covered by another MACT standard, and establish a time table for completing this effort. For those types not elsewhere covered, the Work Group should recommend to the Coordinating

Committee that they be covered by another MACT standard or consider whether to expand the ICCR scope.

For turbines, engines, and fossil fuel fired boilers, the subgroup generally agreed that given the amount of data in the database and population data available from market research and previous projects, a widely distributed survey is not needed to characterize the population and develop model plants.

The subgroup recommended that additional questionnaires should not be sent out by Source Work Groups without coordination through the Coordinating Committee.

The subgroup considered the questions raised regarding the survey process and came to following decisions:

That EPA surveys will be sent out under Section 114 as mandatory. There was general agreement that the survey will accommodate additional voluntary efforts. Once the recipient list is known, trade associations or companies could survey these if they can provide EPA sufficient assurance that the same information will be collected.

That EPA will distribute section 114s. Trade associations will distribute any voluntary efforts.

EPA will share the recipient list with Work Groups and trade associations to avoid the same facility getting multiple surveys.

The EPA will receive the section 114s, and trade associations will receive the information from the voluntary requests.

The organization that sent out the survey will do the necessary QA/QC. However, if an association wants to assist in QA/QC of nonconfidential information from responses, EPA is open to this assistance.

In general, the organization that sends out a survey will compile it. However, EPA sees a need to have access to the raw data and a key to decode any coded data. The group discussed the possibility of using a common contractor to compile both the EPA and trade association data.

Double counts will be eliminated by ERG and Alpha-Gamma.

Additional emission test data will probably need to be collected in the future. There may be additional existing data that may be obtainable by:

Contacting regional, State, and local offices to determine if they have toxics test reports not in STIRS.

Trade associations asking their members

Literature searches if source Work Groups determine these would be useful.

The EPA and Source Work Groups should review STIRS data and assess how it can be used and where there are obvious gaps. They also need to consider where test data will be most useful (e.g., for particular controls or types of units or fuels). EPA has some budget for future emission testing, but will also need to explore industry or cooperative testing efforts.

The group agreed that the term "waste" could be controversial and that respondents could make inconsistent decisions on whether a material they combust is a fuel or a waste and whether to fill out the survey. Therefore, it was decided to title the survey "Combustion Unit Survey Form" and to direct respondents to fill out unit-specific information in Part II of the survey form for all incinerators and for boilers and process heaters that burn, fire, combust, or destroy anything other than 100 percent fossil fuel. The instructions to the survey provide further definition and list any materials or types of units for which EPA decides we do not need to collect information.

In a conference call last week the subgroup discussed the survey form developed by the survey task group. The survey would be sent to incinerators, boilers and process heaters in the ICCR database combusting non-fossil fuel/waste materials. The subgroup approved the form but decided to add criteria pollutants to the list of pollutants in question. This was further revised to specify TSP, PM10 and PM2.5.

The decision was made to include landfill flares in the survey since they are a special case and may not be covered by any other MACT. If land fill gas is burned in a boiler or engine it would be covered by the ICCR so it is logical that we also consider landfill flares.

The subgroup discussed OMB's comment that a 2-phase survey should be considered. The subgroup concluded that because the burden for filling out the survey is minimal, there is no need to separate it into 2 phases. Furthermore, a 2-phase approach would delay the project schedule.

The EPA asked if their estimate that the survey would take 15 hours to fill out is reasonable. This estimate assumed the average facility will fill out the survey for 2 combustion devices. Several industry representatives replied that once the survey is given to the right person at the plant, it should take only 2 to 4 hours to fill out.

The subgroup discussed the need for the instructions to be clear on whether units combusting gases (e.g., landfill gases, process gases) should be included in the questionnaire responses. The subgroup reviewed the instructions.

Fred Porter reviewed the EPA's deadline for initiating the survey mailing. A date of March 28 has been agreed upon with the litigants. It should be noted that the litigants have agreed to several extensions in order to allow the ICCR to act in this matter. The EPA will provide the survey and mailing list to the Government Printing Office on this date and the GPO will copy and mail it. This means that if any associations wish to send a voluntary survey in lieu of the EPA's section 114 survey to non-fossil fuel/waste-fired units, the association must discuss details with the EPA in advance of March 28.

A question was asked on whether the March 28 date applies if a trade association wishes to collect information on fossil fuel-fired sources. The EPA does not plan to survey fossil fuel-fired sources for purposes of population characterization and model plant development but plans to rely on the ICCR database and previous studies. If a trade association wishes to collect

additional data on fossil fuel-fired sources the March 28 date does not apply, but the information would need to be collected and compiled this fiscal year in order to be useful.

Fred Porter stated that OMB had expressed interest in reviewing voluntary surveys being sent out by trade associations for the ICCR. The subgroup felt that trade associations should be able to collect information voluntarily without OMB approval.

You have the survey form and instructions before you. You will note that the following **will not** be surveyed:

Bagasse, Coke, Gases, butane, propane and liquefied petroleum gas, also process gas, Municipal sludge (waste water treatment sludge), and Site Remediation waste. There is sufficient information available from various sources that a 114 is not needed at this time.

The following **will be** surveyed using this form:

Commercial and Industrial 'solid wastes, Industrial sludge, Municipal solid waste, Soil burners, Liquid waste, Waste oil, and Landfill gas.

The survey and related material are presented for your endorsement.

Meeting Minutes
The Ad Hoc Subgroup on Data Collection
Industrial Combustion Coordinating Rulemaking
January 22 and 23, 1997

Attendees

<u>Name</u>	<u>Affiliation</u>
Greg Adams (via telephone)	Los Angeles County Sanitation District
Sam Allen	Dow Chemical Company
Amanda Agnew	U.S. EPA
Sam Clowney	Tenneco Energy
John deRuyter	E.I. du Pont de Nemours & Co., Inc.
Jim Eddinger	U.S. EPA
Mike Gallagher	Research Triangle Institute (RTI)
Steve Gerritson	Lake Michigan Air Directors Consortium (LADCO)
Lee Gilmer	Texaco, Inc.
Reese Howle	Alpha-Gamma
Bill Maxwell	U.S. EPA
Ruth Mead	ERG
Norm Morrow	Exxon Chemical Americas
John Ogle	Dow Chemical Company
Bob Palzer	Oregon Chapter of the Sierra Club
Fred Porter	U.S. EPA
Brahim Richani	Alpha-Gamma
Sims Roy	U.S. EPA
Marv Schorr	GE Industrial and Power Systems
Mike Soots	Kincaid Furniture Company, Inc.
Joe Tessitore	Harding Lawson Associates
Mae Thomas	ERG
R. M. VanFrank	National Audubon Society

Decisions and Action Items

- The subgroup reached an agreement that a survey should be sent to fill information gaps on waste combustors. The subgroup agreed to use the EPA/state database to identify incinerators waste boilers and process heaters. These units or a sampling will be surveyed. The subgroup agreed that expertise from the Work Groups could be used to determine if there are any industries or type of incinerators, or waste boilers or process heaters that are missing from the database.
- The subgroup charged the Incinerator Work Group to take the lead in establishing a taskgroup to:

1. develop a questionnaire to survey waste-fired boilers, incinerators, and process heaters, and
2. recommend which sources in the ICCR data base to sample to fill data gaps for the various types of wastes and industries.

This taskgroup will be composed of 2 to 4 members each selected by the incinerator, boilers and process heater Work Group, and others as needed to achieve balance.

- The subgroup agreed to have one of the questions on the incinerator waste boiler and process heater survey that asks a broad question regarding whether the facility has any HAP test data from any combustion source at the facility.
- The taskgroup will submit the recommended survey to the Source Work Groups for review. After changes have been made based on Source Work Group comments, the Ad Hoc subgroup on data collection will review the survey.
- The final survey and other recommendations of this subgroup will be presented by Norm Morrow and Dr. R. VanFrank to the Coordinating Committee at the March meeting.
- The subgroup recommended that the Process Heater Work Group review the sufficiency of the EPA database for process heaters. Assuming further information is needed, the subgroup agreed to recommend to the Process Heater Work Group to encourage CMA, API, and the pulp and paper industry to develop information for their industries for process heaters. This recommendation was based on the general belief by the subgroup that classic process heaters are primarily in the petroleum refining, chemical, and pulp and paper industries.
- For each other type of possible process heaters, the subgroup recommends the Process Heater Work Group continue their effort to determine whether each SCC has been or is planned to be covered by another MACT standard, and establish a time table for completing this effort. For those types not elsewhere covered, the Work Group should recommend to the Coordinating Committee that they be covered by another MACT standard or consider whether to expand the ICCR scope.
- For turbines, engines, and fossil fuel fired boilers, the subgroup generally agreed that given the amount of data in the database and population data available from market research and previous projects, a widely distributed survey is not needed to characterize the population and develop model plants. EPA is currently not planning to send a

Section 114 Survey for turbines, engines, and fossil fuel fired boilers for population and model plant data.

- The subgroup recommends that additional questionnaires should not be sent out by Source Work Groups without coordination through the Coordinating Committee.
- The subgroup considered the questions listed on the agenda regarding the survey process.
 - Voluntary vs. Mandatory: EPA surveys will be sent out under Section 114 as mandatory. There was general agreement that the survey will accommodate voluntary effort. Once the recipient list is known, trade associations or companies could survey these if they can provide EPA sufficient assurance that the same information will be collected.
 - How will recipients be selected? From ICCR database.
 - Who will distribute? EPA will distribute section 114s. Trade associations will distribute any voluntary efforts.
 - EPA will share the recipient list with Work Groups and trade associations to avoid the same facility getting multiple surveys.
 - Who will receive responses: EPA for section 114s, trade associations for voluntary requests.
 - Who will QA/QC responses: the organization that sent out the survey will do it. However, if an association wants to assist in QA/QC of nonconfidential information from responses, EPA is open to this assistance.
 - Who will compile? In general, the organization that sends out a survey will compile it. However, EPA sees a need to have access to the raw data and a key to decode any coded data. The group discussed the possibility of using a common contractor to compile both the EPA and trade association data.
 - Who will eliminate double counts? ERG and Alpha-Gamma.
- Additional emission test data will probably need to be collected in the future. It was suggested that there may be additional existing data. Suggestions included:

- Contacting regional, State, and local offices to determine if they have toxics test reports not in STIRS.
- Trade associations asking their members
- Literature searches if source Work Groups determine these would be useful.

The EPA and Source Work Groups should review STIRS data and assess how it can be used and where there are obvious gaps. They also need to consider where test data will be most useful (e.g., for particular controls or types of units or fuels). EPA has some budget for future emission testing, but will also need to explore industry or cooperative testing efforts.

ATTACHMENT 5

INDUSTRIAL COMBUSTION COORDINATED
RULEMAKING QUESTIONNAIRE

Combustion Unit Survey Form

Part I. Facility Information

1. Facility Name, ID No. and Physical Address

2. Corrections to Name or Physical Address:

(name)

(street)

(city)

(state)

(zip)

3. Facility Contact Name

Phone Number

ext.

Fax Number

4. Name of Legal Owner of Facility -----

5. For combustion devices that burn, fire, combust, or destroy **only** 100% fossil fuel (see Enclosure 2), indicate those for which HAP emission test data are available:

Boiler

Process Heater

Gas Turbine

Stationary IC Engine

☐

☐

☐

☐

It is not necessary to provide test data at this time. Test reports may be requested at a later date.

6. For combustion devices that burn, fire, combust, or destroy **other than** 100% fossil fuel (see Enclosure 2), indicate those for which HAP emission test data are available:

Boiler

Process Heater

Gas Turbine

Stationary IC Engine

☐

☐

☐

☐

It is not necessary to provide test data at this time. Test reports may be requested at a later date.

If all of your combustion devices burn, fire, combust or destroy only the fossil fuels and/or materials listed in ENCLOSURE 2, or are subject to RCRA subtitle C or listed in ENCLOSURE 3, STOP HERE and return this form.

If ANYTHING OTHER THAN THE FOSSIL FUELS and materials listed in ENCLOSURE 2 is burned, fired, combusted or destroyed in a boiler, process heater, incinerator, or landfill gas flare, and the device is not subject to RCRA subtitle C or listed in ENCLOSURE 3, PLEASE CONTINUE.

Facility ID No.

Combustion Device ID No.

Part II. Combustion Device Information

Photocopy this section as needed to complete the following for each landfill gas flare and each incinerator, boiler and process heater that burns, fires, combusts or destroys anything other than the fossil fuels and/or materials listed in Enclosure 2, unless the device is subject to RCRA subtitle C or listed in Enclosure 3. **NOTE: The generation of new data is not required.**

Please identify clearly any response(s) that you consider to be confidential business information. Any responses not so identified will be included in a publicly available database. Refer to Enclosures 4, 5, and 7 for more information on the treatment of confidential business information and a list of information you may be asked to submit later to substantiate a claim of confidentiality.

1. Combustion Device Type (indicate one, see Enclosure 1 for detailed definitions)

Boiler ☐ Process Heater ☐ Incinerator ☐ Landfill Gas Flare ☐

2. General Information

Manufacturer				Subject to NSPS? <input type="checkbox"/> yes <input type="checkbox"/> no
Model No.				<input type="checkbox"/> Subject to the NSPS when constructed
Year Installed	19			<input type="checkbox"/> Subject Due to Modification Year: 19 <input type="text"/>

3. Design Capacity (fill in boxes corresponding to appropriate units)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	million btu/hr input	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	gpm of
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	1000 lb steam/hr	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	tons per day of
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	other:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	lb per hour of

4. Operating Parameters

a. Typical number of hours operated per year: per day:

b. Typical operating rate (expressed as % of design): ☐ 0-20 ☐ 20-40 ☐ 40-60

☐ 60-80 ☐ 80-100 ☐ >100

c. Maximum operating rate (expressed as % of design): ☐ 0-20 ☐ 20-40 ☐ 40-60

☐ 60-80 ☐ 80-100 ☐ >100

d. Is the operation seasonal? ☐ yes ☐ no

If yes, provide the typical number of months operated in each season:

spring	<input type="text"/>	<input type="text"/>
summer	<input type="text"/>	<input type="text"/>
fall	<input type="text"/>	<input type="text"/>
winter	<input type="text"/>	<input type="text"/>

Facility ID No.

--	--	--	--	--	--	--	--	--	--

Combustion Device ID No.

--	--	--	--	--	--	--	--	--	--

5. Description

a. Boilers (indicate all that apply)

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Field-erected | <input type="checkbox"/> Moving Grate Stoker | <input type="checkbox"/> Semi-suspension | <input type="checkbox"/> Natural Draft |
| <input type="checkbox"/> Package | <input type="checkbox"/> Spreader Stoker | <input type="checkbox"/> Full suspension | <input type="checkbox"/> Forced Draft |
| <input type="checkbox"/> Water tube | <input type="checkbox"/> Vibratory Stoker | <input type="checkbox"/> Wet Bottom | <input type="checkbox"/> Induced Draft |
| <input type="checkbox"/> Fire tube | <input type="checkbox"/> Circulating Fluidized Bed | <input type="checkbox"/> Dry Bottom | <input type="checkbox"/> Balanced Draft |
| <input type="checkbox"/> Dutch Oven | <input type="checkbox"/> Bubbling Fluidized Bed | <input type="checkbox"/> Wall-Fired | <input type="checkbox"/> Air Preheat |
| <input type="checkbox"/> Coil Tube | <input type="checkbox"/> Mass Feed | <input type="checkbox"/> Tangentially-Fired | <input type="checkbox"/> Coal converted to liquid or gas |
| <input type="checkbox"/> Cell Type | <input type="checkbox"/> Pneumatically fed | <input type="checkbox"/> Cyclone-Fired | |
| <input type="checkbox"/> Pulverized Coal | <input type="checkbox"/> Under Feed | <input type="checkbox"/> Fixed Grate | <input type="checkbox"/> Other: _____ |

b. Process Heater (select one) (See instructions for descriptions)

indirect-fired

☐

direct-fired

☐

c. Incinerator (indicate all that apply)

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> metals recovery | <input type="checkbox"/> fixed hearth | <input type="checkbox"/> infrared furnace | <input type="checkbox"/> fluid bed |
| <input type="checkbox"/> burn-off oven | <input type="checkbox"/> spreader stoker | <input type="checkbox"/> multi-chamber | <input type="checkbox"/> single batch fed |
| <input type="checkbox"/> crematory | <input type="checkbox"/> moving grate | <input type="checkbox"/> excess air | <input type="checkbox"/> intermittent batch fed |
| <input type="checkbox"/> rotary hearth | <input type="checkbox"/> single chamber | <input type="checkbox"/> starved air | <input type="checkbox"/> continuously fed |
| <input type="checkbox"/> pathological | <input type="checkbox"/> rotary kiln | <input type="checkbox"/> catalytic | |
| <input type="checkbox"/> suspension firing | <input type="checkbox"/> multiple hearth | <input type="checkbox"/> other: _____ | |

d. Landfill Gas Flares (indicate all that apply)

- | | | | |
|---------------------------------------|---------------------------------|--|---|
| <input type="checkbox"/> elevated | <input type="checkbox"/> ground | <input type="checkbox"/> naturally aspirated | <input type="checkbox"/> enclosed or shrouded |
| <input type="checkbox"/> other: _____ | | | |

6. Materials Combusted

- a. List each fuel, waste, or other material combusted using the codes provided in Enclosure 8. Provide the percentage of annual heat input corresponding to each material. Indicate the type of usage (primary, startup, etc.), and whether the material is co-fired. Attach an analysis or description for any material not listed in Enclosure 2, if available. Indicate that an analysis or description has been provided.

Material Code		% of Annual Input			Primary	Startup	Standby	Supplemental	Co-fired	Analysis/Description Attached
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b. Does the mixture of combusted material change significantly from summer to winter? ☐ yes ☐ no

Facility ID No.

--	--	--	--	--	--	--	--	--	--

Combustion Device ID No.

--	--	--	--	--	--	--	--	--	--

c. Do material firing rates change significantly from summer to winter? ☐ yes ☐ no

d. Do any of the non-fossil fuel materials listed above contain the following? (See instructions for descriptions)

heavy metals ☐ yes ☐ no ☐ don't know

halogenated compounds ☐ yes ☐ no ☐ don't know

radioactive materials ☐ yes ☐ no ☐ don't know

e. If PG (process coproduct gas), PL (process coproduct liquid), AQ (aqueous waste), IS (industrial sludge), WS (industrial wastewater sludge), OW (other wood), IW (industrial solid waste), PS (process coproduct solid), TW (treated wood), OG (other gas), LW (liquid waste), OL (other liquid), or OS (other solid) are listed in 6a, please provide a brief description.

Code	Description

7. Control Device or Technique

Provide the following information for each device or technique that controls emissions. Use the numeric type codes provided in Enclosure 9.

Type	Year Installed	Manufacturer	Model No.	Shared?
	19			<input type="checkbox"/> yes <input type="checkbox"/> no
	19			<input type="checkbox"/> yes <input type="checkbox"/> no
	19			<input type="checkbox"/> yes <input type="checkbox"/> no
	19			<input type="checkbox"/> yes <input type="checkbox"/> no
	19			<input type="checkbox"/> yes <input type="checkbox"/> no
	19			<input type="checkbox"/> yes <input type="checkbox"/> no
	19			<input type="checkbox"/> yes <input type="checkbox"/> no
	19			<input type="checkbox"/> yes <input type="checkbox"/> no

Facility ID No.

--	--	--	--	--	--	--	--

Combustion Device ID No.

--	--	--	--	--	--	--	--

8. Available Emission Test Data

Indicate the material/pollutant combinations for which emission test data are available. Use the material ID codes from question 6. Submission of test data is not required at this time, although reports may be requested at a later date.

	Test 1	Test 2	Test 3	Test 4								
Fuel/Waste ID Code (material providing greatest heat input)	<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>		
Fuel/Waste ID Code	<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>		
Fuel/Waste ID Code	<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>		
Year of Test (19____)	<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>			<table border="1"><tr><td></td><td></td></tr></table>		
Acetaldehyde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Benzene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Cadmium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Carbon Monoxide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Dioxins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Formaldehyde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Hydrogen Chloride	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Lead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Methanol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Mercury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Nitrogen Oxides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Polynuclear Aromatic Hydrocarbons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Particulate Matter												
Total Suspended Particulate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
PM ₁₀	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
PM _{2.5}	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Sulfur Dioxide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Volatile Organic Compounds or Total Organic Compounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Other HAPs:												
-----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
-----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								

Part III. Economics

Please identify clearly any response(s) that you consider to be confidential business information. Any responses not so identified will be included in a publicly available database. Refer to Enclosures 4, 5, and 7 for more information on the treatment of confidential business information and a list of information you may be asked to submit later to substantiate a claim of confidentiality.

1.a. Number of Facility Employees

☐ 0-100 ☐ 100-250 ☐ 251-500 ☐ 501-750 ☐ 751-1,000 ☐ 1,001-1,500 ☐ >1,500

b. Is the legal owner a small business? ☐ yes ☐ no ☐ unknown

2. SIC(s)

primary secondary tertiary

3. For the **incineration** units covered in Part II of this survey, if any, is excess energy produced, recovered and used productively?

☐ Yes ☐ No ☐ No incineration units included in Part II

4. Approximately what percent of your total facility annual energy need (including process heat, steam, space heat, and electricity generation) is met by the units covered in Part II of this survey?

☐ less than 5 percent ☐ 5 to 30 percent ☐ 31 to 60 percent
☐ greater than 60 percent ☐ Don't Know ☐ no process heaters or boilers or incinerators with heat recovery

5. Considering all of the units covered in Part II of this survey, what percentage of the energy produced by these units is used to produce steam or electricity to be sold off-site?

☐ 0, 100% consumed on-site ☐ >0 to 30 percent ☐ 31 to 60 percent
☐ greater than 60 percent ☐ Don't Know ☐ 0, no steam or electricity produced

6. Do the SICs listed in question 2 of this part accurately represent the primary activity or manufacturing process in which the steam, heat, or electricity produced from these incinerator(s), process heater(s), or boiler(s) included in Part II is used?

☐ Yes ☐ No

If "No", provide a brief description of the process or activity in which the steam, heat, or electricity is used:

7. If you did not burn the non-fossil fuel material in your incinerator(s), process heater(s) or boiler(s), how would you compensate for the lost heating value?

☐ burn a fossil fuel such as coal, oil, or gas in the same units
☐ buy new equipment capable of burning another fuel
☐ not applicable, material has no heating value

8. If you did not burn the non-fossil fuel material in your incinerator(s), process heater(s) or boiler(s), what would be the most likely alternative use or disposal method? (*check all that apply*)

☐ dispose on-site ☐ send to a landfill off-site ☐ waste water treatment plant
☐ dispose through local trash collection ☐ sell as a product ☐ no other alternative currently available
☐ contract for special disposal service ☐ sell as a fuel ☐ don't know
☐ vent to atmosphere
☐ other: _____

Form Approved

OMB Control No. 2060 - 0355

Approval Expires 3/31/2000

INDUSTRIAL COMBUSTION COORDINATED RULEMAKING

QUESTIONNAIRE

RESPONSE REQUIREMENTS

A Part I form is to be completed for each facility that receives this questionnaire. A Part II form is to be completed for each of the following:

- landfill gas flare
- boiler, process heater, or incinerator (as defined in Enclosure 1) that burns, fires, combusts, or destroys materials other than the fossil fuels and materials listed in Enclosure 2.

Additionally, a Part II form is not required to be completed for combustion devices subject to RCRA subtitle C or for the process heaters listed in Enclosure 3. If one or more Part II forms are completed, one Part III form must also be completed. If all combustion devices at the facility either burn, fire, combust or destroy only the fossil fuels and/or materials listed in Enclosure 2, are subject to RCRA subtitle C, or are listed in Enclosure 3, it is not necessary to complete any forms other than Part I.

BACKGROUND

Under Sections 111, 112 and 129 of the Clean Air Act (the Act), the EPA is required to develop or review regulations for a variety of combustion sources. An effort is currently underway to address the requirements of the Act simultaneously for a variety of combustion sources. The EPA is soliciting data from the owners and operators of landfill gas flares,

incinerators, boilers and process heaters in order to complete the analyses needed to establish and review regulations.

Section 112 of the Act requires that the EPA establish national emission standards for hazardous air pollutants (NESHAP) for the following source categories:

- Industrial Boilers
- Commercial/Institutional Boilers
- Process Heaters
- Stationary Internal Combustion Engines
- Stationary Gas Turbines

Additionally, section 129 of the Act requires the EPA to develop New Source Performance Standards and Emissions Guidelines (NSPS and EG) for the following source categories:

- Industrial/Commercial Solid Waste Incineration
- Other Solid Waste Combustion

Furthermore, existing NSPS regulations developed under section 111 affecting some of these source categories are periodically reviewed and revised. At minimum, the EPA is required to promulgate seven regulations under sections 112 or 129, and may promulgate additional regulations under section 111.

The pollutants that will possibly be regulated by these standards include:

- Hazardous air pollutants(section 112);
- PM (total and fine), opacity, SO₂, HCl, NO_x, CO, lead, cadmium, mercury, and dioxins and furans (section 129);
- SO₂, NO_x, and PM (section 111).

In order to minimize the burden to respondents, the EPA limited this survey to request only information that can not be obtained through alternate sources. The survey requests general information on the type of test data available for the combustion devices discussed previously and specific information regarding flares combusting landfill gas, and boilers, process heaters and

incinerators that burn non-fossil fuel materials for which sufficient information is not available through sources currently available to the EPA.

PURPOSE OF SURVEY

The primary purpose of this survey is to obtain information concerning the population of landfill gas flares and boilers, process heaters and incinerators that combust materials other than fossil fuels. This survey is also being used to determine the availability of test data for combustion devices. The survey requests general information concerning your facility and hazardous air pollutant emission test data availability. Also requested is specific design, operation, fuel and control device information for flares that combust landfill gas, and boilers, process heaters and incinerators that combust non-fossil fuel materials for which current data sources are limited.

The information provided will be used to develop model combustion devices and model facilities which will be used to determine the maximum achievable control technology (MACT) floor, identify regulatory alternatives (control options) more stringent than the floor, and estimate the emission reduction, cost, and economic and other impacts of the alternatives. The impact estimates are the basis for making decisions regarding which regulatory alternative to propose.

BURDEN ESTIMATE

Preliminary estimates of the public burden associated with this information collection effort indicate an average burden of 15 hours per facility. An additional burden of one hour is estimated for those facilities from which a test report is requested. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions, search data sources, validate and process information, complete and review forms, and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE Regulatory Information Division,

U.S. Environmental Protection Agency (2137), 401 M St., SW, Washington, D.C. 20460.
Include the OMB control number in any correspondence. Do not send the completed questionnaire to this address.

EPA'S AUTHORITY TO COLLECT INFORMATION AND HANDLING OF CONFIDENTIAL BUSINESS INFORMATION

The EPA's authority to gather information is presented in section 114 of the CAA, as amended, (42 U.S.C. 7414). Enclosure 4 contains a summary of this authority. You should also be aware that any failure to comply with this information request is a violation of section 114, and as such is subject to enforcement under section 113 [specifically, 113(d)(1)(B)] of the CAA, which provides civil penalties of up to \$25,000 per day of violation.

If you believe that disclosure of specific information that you submit would reveal a trade secret, clearly identify such specific information. Please do not label an entire response "confidential" if only certain portions contain trade secret information. Refer to Enclosure 4 for the information the EPA may require, at a later time, to support your confidentiality claims. Any information subsequently determined to constitute a trade secret will be protected under 18 U.S.C. 1905. If no claim of confidentiality accompanies the information when it is received by the EPA, it may be made available to the public by the EPA without further notice (40 CFR part 2.203, September 1, 1976). This survey does not request actual emission data, but it asks whether you have emission test data. At a later time, EPA may contact you to obtain such data. Because section 114(c) of the CAA exempts emission data from claims of confidentiality, the emission data you provide may be made available to the public. A clarification of what the EPA considers to be emissions data is contained in Enclosure 5.

The EPA has contracted Eastern Research Group (ERG) (Contract No. 68-D6-0011) to obtain information pertinent to these rulemakings. Thus, as noted in Enclosure 6, ERG has been designated by the EPA as an authorized representative of the Agency. Therefore, ERG has the rights discussed above and in Enclosure 4. Accordingly, ERG will have access to all information provided to the EPA in response to this request. As a designated representative of the Agency, ERG is subject to the provisions of 42 U.S.C. 7414(c) respecting confidentiality of methods or processes entitled to protection as trade secrets.

Enclosure 7 summarizes Agency and Emission Standards Division policies and procedures for handling privileged information and describes the EPA's contractor commitments and procedures for using confidential materials. It is the EPA's policy that compliance by an authorized representative with the requirements detailed in Enclosure 7 provides sufficient protection for the rights of submitters of privileged information.

GENERAL INSTRUCTIONS

Please provide the information requested in the following forms. If you are unable to respond to an item as it is stated, please provide any information you believe may be related. Use additional copies of the questionnaire forms for your responses, if necessary. **Only existing data are being requested. The generation of new data, additional monitoring, or emission testing is not required by your company to respond to this questionnaire.**

If you believe the disclosure of the information requested would compromise a trade secret, clearly identify such information. Please do not label the entire response confidential if only certain portions contain trade secret information.

The following forms are to be completed:

- Part I - General Facility Information: one for the entire facility receiving this request.
- Part II - Combustion Device Information: **one for each landfill gas flare and boiler, process heater, or incineration unit that burns, fires, combusts, or destroys materials other than the fossil fuels and/or materials listed in Enclosure 2.** Definitions of boilers, process heaters, and waste incineration units are provided in Enclosure 1. **Do not complete a Part II form for devices subject to RCRA subtitle C or listed in Enclosure 3.**
- Part III - Economics: one for the entire facility, complete if one or more Part II forms are completed.

When a facility has multiple identical combustion devices for which all of the Part II form information is the same, it is acceptable to complete only one Part II form and indicate all combustion devices to which it applies under "Combustion Device ID No." Detailed instructions for each form follow.

If you have any questions regarding this information request, please call the ICCR Information Collection Hotline at (888) 461-1208.

Return the completed questionnaire and any additional information by July 15, 1997 to:

EPA - Combustion Survey

C S 2090

Morrisville, NC 27560-2090

Part I
Facility Information
Instructions

Complete one Part I form for the facility. Only existing data are being requested. The generation of new data, additional monitoring, or emission testing is not required by your company to respond to this questionnaire.

1. Facility Name, ID No., and Physical Address - the name and physical address (location) of your facility has been pre-printed on your survey form.
2. Corrections to Name or Physical Address - do not complete if the name and physical address in question 1 is correct
3. Facility Contact - provide the name, phone number, and fax number of a facility contact who can answer questions regarding the responses to this survey
4. Name of Legal Owner of Facility

Questions 5 and 6 apply to any boiler, process heater, or incinerator at the facility, whether or not a Part II form is required for that device.

5. This question applies only to combustion devices that combust 100 percent fossil fuel (as listed in Enclosure 2). Indicate the equipment type(s) for which you have available hazardous air pollutant (HAP) emission test data. Check all that apply. Definitions for boilers and process heaters are included in Enclosure 1. Test data are not being requested by this survey. Test data may be requested at a later date.
6. This question applies only to combustion devices that burn, fire, combust, or destroy anything other than 100 percent fossil fuel. Indicate the equipment type(s) for which you have available HAP emission test data. Check all that apply. Definitions for boilers and process heaters are included in Enclosure 6. Test data are not being requested by this survey. Test data may be requested at a later date.

If all of the combustion devices at your facility burn, fire, combust, or destroy only the fossil fuels and/or materials listed in Enclosure 2, are subject to RCRA subtitle C, or are listed in Enclosure 3, do not complete Parts II and III. Return the completed Part I form to the address provided.

If any boiler, process heater, or incinerator at your facility burns, fires, combusts, or destroys anything other than the fossil fuels and materials listed in Enclosure 2, and is not subject to RCRA subtitle C or listed in Enclosure 3, continue with Part II and Part III.

Part II
Combustion Device Information
Instructions

Photocopy this section as needed to complete one Part II form for each landfill gas flare and for each incinerator, boiler, and process heater that burns, fires, combusts or destroys anything other than the fossil fuels and materials listed in Enclosure 2. Do not complete a Part II form for devices subject to RCRA subtitle C or listed in Enclosure 3.

If your facility has multiple identical combustion devices for which all of the Part II information is the same, it is acceptable to complete only one Part II form and indicate all combustion devices to which it applies under "Combustion Device ID No."

Please identify clearly any response(s) that you consider to be confidential business information. Any responses not so identified will be included in a publicly available database. Refer to enclosures 4, 5, and 7 for more information on the treatment of confidential business information and a list of information you may be asked to submit later to substantiate a claim to confidentiality.

Only existing data are being requested. The generation of new data, additional monitoring, or emission testing is not required by your company to respond to this questionnaire.

Fill in the Facility ID No. (From Part I, question 1) and the Combustion Device ID No. (assigned by the facility) at the top of each page.

1. Combustion Device Type - The name given to a combustion device type may vary between industries and facilities. Refer to the definitions in Enclosure 1 to determine the correct device type.
2. Manufacturer, Model No., Year Installed - (self-explanatory)

Subject to NSPS? - Indicate whether the unit is subject to a New Source Performance Standard (NSPS). Mark the appropriate box to indicate whether the unit was subject to the NSPS when first constructed or became subject to the NSPS due to a modification. If subject due to modification, provide the year of the modification.

3. Design Capacity - provide the unit's design capacity using the most appropriate or available units. This may be listed on the combustion device or included in the manufacturer's specifications. Fill in the boxes preceding the appropriate units. If providing capacity in gallons per minute (GPM), tons per day, or lb per hour, fill in the appropriate blanks to complete the units. If design capacity is in units other than those listed, provide the capacity in the boxes preceding the "other" box and fill in the units. For equipment capable of firing different fuels, provide the highest rating on any individual fuel or combination of fuels.

4. Operating Parameters

- a. Typical number of hours operated per year and per day - (self-explanatory)
- b. Typical operating rate - expressed as a percentage of the design rate provided in question 3. If typical operating rate exceeds design rate, indicate "> 100".
- c. Maximum operating rate - expressed as a percentage of the design rate provided in question 3. If maximum operating rate exceeds design rate, indicate "> 100".
- d. Is the operation seasonal? If unit does not typically run year-round, mark the box for "yes" and provide the typical number of months per season that the unit is operated. Otherwise, mark the box for "no".

5. Description

- a. Boilers - indicate all that apply

Many boilers will require a number of descriptors to fully characterize the equipment. Examples of descriptions that could apply to one boiler:

- Field-erected, water tube, pulverized coal, dry bottom, tangentially-fired, balance draft, air preheat; or
- Package, fire tube, forced draft; or
- Field-erected, water tube, moving grate stoker, balanced draft; or
- Package, water tube, forced draft.

- b. Process Heaters - select one.

Indirect-fired refers to any process heater in which the combustion gases do not mix with, or exhaust to the atmosphere from the same stack(s), vent(s), etc. with, any gases emanating from the process or material being processed.

Direct-fired refers to any process heater in which the combustion gases mix with and exhaust to the atmosphere from the same stack(s), vent(s), etc. with gases originating with the process or material being processed.

- c. Incinerators - indicate all that apply

Many incinerators will require a number of descriptors to fully characterize the equipment. Example of a description:

- Moving grate, excess air, continually fed.

- d. Landfill gas flares - indicate all that apply

6. Materials Combusted

- a. List each fuel, waste or other material (e.g., scrap metal) combusted in the unit using the codes provided in Enclosure 8. Include both fossil and non-fossil fuels. Provide the percentage of annual heat input corresponding to each material. Indicate the type of usage (primary, startup, etc.), and whether the material is co-fired. Definitions for usage types and co-fired are provided in Enclosure 1. For any material not listed in Enclosure 2, attach a sample analysis or description that provides an indication of the composition of the material, if available. Indicate that an analysis or description has been provided.
- b. Considering fuels, wastes and other materials, does the mixture change significantly from summer to winter? Mark the "yes" box if the relative amounts of materials change significantly from summer to winter.
- c. Considering fuels, wastes and other materials, do material firing rates change significantly from summer to winter? Mark the "yes" box if the firing rates of materials change significantly from summer to winter.
- d. Do any of the non-fossil fuel materials combusted contain the following:
- Heavy Metals - Mark the "yes" box if burning non-fossil fuels containing heavy metals such as mercury, cadmium and lead.
 - Halogenated Compounds - Mark the "yes" box if burning non-fossil fuels, such as plastics, that contain halogenated compounds. Halogenated compounds include compounds containing chlorine, bromine and other halogens.
 - Radioactive Materials - Mark the "yes" box if burning non-fossil fuels containing radioactive materials.
- e. If PG (process coproduct gas), PL (process coproduct liquid), AQ (aqueous waste), IW (industrial solid waste), IS (industrial sludge), WS (industrial wastewater sludge), PS (process coproduct solid), TW (treated wood), OG (other gas), LW (liquid waste), OL (other liquid), OW (other wood) or OS (other solid) are listed in 6a, please provide a brief description. These codes may apply to a

wide variety of materials. If any of these codes are used, a brief description is requested. Please use generic and scientific terms in these descriptions (e.g., "liquid hydrocarbons with a boiling range of 300-500°F" rather than "byproduct from unit X" or "T-1 overhead"). Please provide a brief description of the materials listed even if a description or analysis is attached in response to question 6a.

7. Control Device or Technique

Indicate the devices and techniques used to control emissions from the combustion unit. Use the numeric codes provided in Enclosure 9. Provide the requested information for each control device or technique. Mark the "yes" box in the "Shared?" column for any control device that controls emissions from units in addition to the one for which the Part II form is completed.

8. Available Emission Test Data

This question applies only to the boiler, process heater, incinerator or landfill gas flare for which the Part II form is completed. Indicate the material/pollutant combinations for which emission test data are available. It is possible to provide information for four different combinations of materials burned (Tests 1-4). For each test, indicate the materials (up to three) being combusted using the material ID codes from question 6. List the material that comprised the greatest percent of the heat input first. Indicate the pollutants for which test data are available. Provide the most recent year in which the testing was done. Write in any hazardous air pollutants (HAPs) tested which are not on the list provided. Test data reports are not being requested at this time but may be requested at a later date.

Part III
Economics
Instructions

If one or more Part II forms are completed, complete one Part III form. Fill in the Facility ID No. (From Part I, question 1) at the top of the page.

Please identify clearly any response(s) that you consider to be confidential business information. Any responses not so identified will be included in a publicly available database. Refer to enclosures 4, 5, and 7 for more information on the treatment of confidential business information and a list of information you may be asked to submit later to substantiate a claim to confidentiality.

1. a. Number of Facility Employees - Provide the number of employees at the facility in terms of full-time employees (e.g., one part-time employee working 20 hours per week is equal to one-half full-time employee). Do not include contractors working on-site.
- b. Is the legal owner a small business? Mark the "yes" box if you know that the legal owner is considered a small business. Mark the "no" box if you know that the legal owner is not considered a small business. If uncertain, mark the "unknown" box.
2. SIC - provide the code for the primary, secondary, and tertiary Standard Industrial Classification that applies to the facility. A list of SIC codes is available in the 1987 Standard Industrial Classification Manual.
3. For the **incineration** units covered in Part II of this survey, if any, is excess energy produced recovered and used productively? Considering only the incineration units for which a Part II form was completed, is excess energy produced in the incineration unit recovered and used for a purpose such as steam or electricity production or to heat a process stream? Indicate "yes" if the excess incinerator energy is recovered. Indicate "no" if the incinerator(s) serve no other purpose than the destruction of materials.
4. Approximately what percent of your total facility annual energy need (including process heat, steam, space heat, and electricity generation) is met by the units covered in Part II of this survey? If the boilers, process heaters, and incinerators covered by Part II were shutdown, what is the relative amount of energy that would need to be generated to maintain operations at current levels? For example, a school has two boilers of equal size used to provide space heat and electricity. One boiler incinerates rubbish. Therefore, 50 percent of the school's energy need is met by a Part II combustion device.
5. Considering all units covered in Part II of this survey, what percentage of the energy produced by these units is used to produce steam or electricity to be sold off-site? For

example, a chemical manufacturing facility estimates that equal amounts of energy are used by their only Part II combustion device, a process heater burning liquid waste, to heat a process stream and produce steam. Three-quarters of the steam produced is used on-site and one-quarter is sold to another facility adjacent to the plant. The chemical plant estimates that 12.5 percent of the energy produced by the process heater is sold off-site.

6. Example Responses

A school that uses heat from an incinerator to heat classrooms marks the "Yes" box in Part III, question 6 and fills in the primary SIC in question 2 with SIC 8211 (elementary and secondary schools).

A manufacturer of wood household furniture who also produces foam products at the site would fill in the primary SIC in question 2 with 2511 (wood household furniture), but would mark the "No" box in question 6 and write in: "The steam from the incinerator at the facility is used in producing foam products" if the energy from the combustion devices in Part II are mostly associated with the foam production process.

ENCLOSURE 1

DEFINITIONS

Boilers, Process Heaters, and Waste Incineration Units (Part I, questions 7 and 8 and Part II, question 1)

"Boiler" means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. For the purposes of this survey, only stand-alone boilers are covered by this definition. Waste heat boilers which are associated with stationary gas turbines or engines are excluded.

"Process Heater" means an enclosed device using controlled flame and the unit's primary purpose is to transfer heat

- a) to a process fluid, or
- b) to a process material that is not a fluid, or
- c) to a heat transfer material, instead of generating steam, and for use in a process unit.

Waste heat recovery from process heaters is included as part of the process heater.

"Incinerator" means any unit of any facility, and the unit combusts any solid waste material, and the unit is not categorized as a boiler or process heater. Waste heat recovery from the incinerator is included as part of the incinerator.

Primary purpose: The primary purpose of a combustion unit is determined based on the purpose for which the unit is being operated.

- a) If the unit is operated solely to produce steam and/or hot water, the primary purpose of the unit is to produce steam or hot water and the unit is a boiler.
- b) If the unit is operated solely to heat process streams as listed in the definition of Process Heater, the primary purpose of the unit is to heat those process streams and the unit is a process heater.
- c) If the unit is operated solely to combust a solid waste, the unit is an incinerator.

- d) The primary purpose of a unit that is operated for more than one of the above purposes is determined based on the following:
 - i) The primary purpose of the unit is to make steam or hot water and the unit is a boiler if the amount of energy recovered in the unit to generate steam or produce hot water is greater than the amount of energy transferred to process streams listed in the definition of Process Heater or used to combust solid waste.
 - ii) The primary purpose of the unit is to heat process streams as listed in the definition of Process Heater and the unit is a process heater if the energy transferred to such process streams in the unit is greater than the amount of any energy recovered to generate steam or to produce hot water or used to combust a solid waste.

A process fluid or a process material that is not a fluid - are streams associated with and integral to a process. These streams are heated in a combustion unit to transfer energy to a process for the purpose of affecting a chemical or physical change or to maintain a condition such as a temperature or composition. Water or steam may be a process fluid; however, water used to produce steam or hot water in a combustion unit that is operated for the primary purpose of producing steam or hot water is not a process fluid. Steam or hot water used for space heating or for generation of electricity are not process fluids.

Streams associated with and integral to a process - means the streams are heated in a combustion unit that primarily operates only when the process operates.

Municipal/Commercial Solid Waste, Types 0-3 (Part II, question 6)

TYPE 0. Trash, a mixture of highly combustible waste such as paper, cardboard cartons, wood boxes, and floor sweepings for commercial and industrial activities. The mixture contains up to 10 percent by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags, and plastic or rubber scraps. This type of waste contains 10 percent moisture and 5 percent noncombustible solids, and has a heating value of 8,500 BTU per pound as fired.

- TYPE 1. Rubbish, a mixture of combustible waste such as paper, cardboard cartons, wood scrap, foliage, and floor sweepings from domestic, commercial, and industrial activities. The mixture contains up to 20 percent by weight of restaurant type waste, but contains little or no treated paper, plastic, or rubber waste. This type of waste contains 25 percent moisture and 10 percent noncombustible solids, and has a heating value of 6,500 BTU per pound as fired.
- TYPE 2. Refuse, an approximately even mixture of rubbish and garbage by weight. This type of waste, common to apartment and residential occupancy, consists of up to 50 percent moisture and 7 percent noncombustible solids, and has a heating value of 4,300 BTU per pound as fired.
- TYPE 3. Garbage, consisting of animal and vegetable wastes from restaurants, hotels, hospitals, markets, and similar installations. This type of waste contains up to 70 percent moisture and up to 5 percent noncombustible solids, and has a heating value of 2,500 BTU per pound as fired.

Usage Types (Part II, question 6)

Primary - fuel, waste, or other material that provides the largest fraction of heat input on an annual basis.

Startup - material used for unit startup, if primary fuel is used for unit startup, both primary and startup boxes should be marked.

Standby - used when primary fuel is not available or when primary fuel cost periodically exceeds standby fuel cost. For example, oil is burned when natural gas is curtailed.

Supplemental - used to augment the primary fuel when heat input demand exceeds the supply of primary fuel, accounts for $\leq 15\%$ of the instantaneous heat input.

Co-fired - fuel, waste, or other material is fired simultaneous with other materials, accounts for $\geq 15\%$ of the instantaneous heat input.

ENCLOSURE 2

Completion of a Part II form is not required for boilers, process heaters and incinerators that burn, fire, combust, or destroy **only** the fossil fuels and/or materials listed below. If one or more Part II forms are completed, a Part III form must also be completed.

Fossil Fuels

- butane
- coal (excluding anthracite culm and bituminous gob)
- coke
- distillate oil
- fuel oil
- liquified petroleum gas
- natural gas
- propane

Other Materials

- bagasse
- hazardous waste (as defined under RCRA subtitle C)
- hydrogen
- petrochemical process gas
- petroleum process gas
- pulp mill noncondensable gas
- spent pulping liquors

ENCLOSURE 3

PROCESS HEATERS EXCLUDED FROM PART II

Completion of a Part II form is not required for the process heaters listed below. If one or more Part II forms are completed, a Part III form must also be completed.

Description	Industry	SIC
Chemical Manufacturing, Carbon Black Production, Pellet Dryer	Carbon Black Production	2895
Chemical Manufacturing, Hydrofluoric Acid, Rotary Kiln: Acid Reactor	Hydrogen Fluoride Production	2819
Chemical Manufacturing, Sodium Carbonate, Monohydrate Process: Rotary Ore Calciner: Gas-fired	Photographic Chemicals Production	2812
Chemical Manufacturing, Sodium Carbonate, Rotary Soda Ash Dryers	Photographic Chemicals Production	2812
Chemical Manufacturing, Normal Superphosphates, Curing	Phosphate Fertilizers Production	2874
Chemical Manufacturing, Normal Superphosphates, Dryer	Phosphate Fertilizers Production	2874
Chemical Manufacturing, Triple Superphosphate, Granulator: Curing	Phosphate Fertilizers Production	2874
Chemical Manufacturing, Triple Superphosphate, Curing	Phosphate Fertilizers Production	2874
Chemical Manufacturing, Triple Superphosphate, Dryer	Phosphate Fertilizers Production	2874
Chemical Manufacturing, Ammonium Phosphates, Curing	Phosphate Fertilizers Production	2874
Chemical Manufacturing, Ammonium Phosphates, Dryer	Phosphate Fertilizers Production	2874
Chemical Manufacturing, Ammonium Sulfate, Caprolactum By-product: Rotary Dryer	Ammonium Sulfate Production-Caprolactum By-Product Plants	2869
Chemical Manufacturing, Ammonium Sulfate, Caprolactum By-product: Fluid Bed Dryer	Ammonium Sulfate Production-Caprolactum By-Product Plants	2869
Chemical Manufacturing, Fuel Fired Equipment, Process Gas (Ethylene Cracking Units)	Ethylene	2869
Primary Metal Production, Aluminum Ore (Bauxite), Drying Oven	Alumina Processing	1051
Primary Metal Production, Aluminum Ore (Electro-reduction), Anode Baking Furnace	Primary Aluminum Production	3334

Description	Industry	SIC
Primary Metal Production, Primary Copper Smelting, Ore Concentrate Dryer	Primary Copper Smelting	3331
Primary Metal Production, Primary Copper Smelting, Slag Cleaning Furnace	Primary Copper Smelting	3331
Primary Metal Production, Ferroalloy, Open Furnace, Ore Dryer	Ferroalloys Production	3313
Secondary Metal Production, Lead Battery Manufacture, Lead Reclaiming Furnace	Lead Acid Battery Manufacturing	3691
Secondary Metal Production, Lead Battery Manufacture, Lead Reclaiming Furnace	Lead Acid Battery Manufacturing	3691
Secondary Metal Production, Steel Foundries, Sand Dryer	Steel Foundries	3324, 3325
Mineral Products, Asphalt Concrete, Rotary Dryer: Conventional Plant	Asphalt Concrete Manufacturing	2951
Mineral Products, Asphalt Concrete, Drum Dryer: Hot Asphalt Plants	Asphalt Concrete Manufacturing	2951
Mineral Products, Asphalt Concrete, Asphalt Heater: Waste Oil	Asphalt Processing	2951
Mineral Products, Asphalt Concrete, Rotary Dryer Conventional Plant with Cyclone	Asphalt Concrete Manufacturing	2951
Mineral Products, Brick Manufacture, Raw Material Drying	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Curing	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Calcining	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Curing and Firing: Sawdust Fired Tunnel Kilns	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Curing and Firing: Gas-fired Tunnel Kilns	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Curing and Firing: Oil-fired Tunnel Kilns	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Curing and Firing: Coal-fired Tunnel Kilns	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Curing and Firing: Gas-fired Periodic Kilns	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Curing and Firing: Coal-fired Periodic Kilns	Clay Products Manufacturing	3251
Mineral Products, Brick Manufacture, Tunnel Kiln: Wood-fired	Clay Products Manufacturing	3251

Description	Industry	SIC
Mineral Products, Cement Manufacturing (Dry Process), Kilns	Portland Cement Manufacturing	3241
Mineral Products, Cement Manufacturing (Dry Process), Preheater/Precalciner Kiln	Portland Cement Manufacturing	3241
Mineral Products, Cement Manufacturing (Wet Process), Kilns	Portland Cement Manufacturing	3241
Mineral Products, Ceramic Clay/Tile Manufacture, Drying	Clay Products Manufacturing	3253
Mineral Products, Fiberglass Manufacturing, Regenerative Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229
Mineral Products, Fiberglass Manufacturing, Recuperative Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229
Mineral Products, Fiberglass Manufacturing, Curing Oven: Rotary Spun (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229
Mineral Products, Fiberglass Manufacturing, Unit Melter Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229
Mineral Products, Lime Manufacture, Calcining: Vertical Kiln	Lime Manufacturing	3274
Mineral Products, Lime Manufacture, Calcining: Rotary Kiln	Lime Manufacturing	3274
Mineral Products, Lime Manufacture, Calcining: Gas-fired Calcimatic Kiln	Lime Manufacturing	3274
Mineral Products, Lime Manufacture, Fluidized Bed Kiln	Lime Manufacturing	3274
Mineral Products, Lime Manufacture, Multiple Hearth Calciner	Lime Manufacturing	3274
Mineral Products, Lime Manufacture, Calcining: Gas-fired Rotary Kiln	Lime Manufacturing	3274
Mineral Products, Mineral Wool, Reverberatory Furnace	Mineral Wool Production	3296
Mineral Products, Mineral Wool, Curing Oven	Mineral Wool Production	3296
Petroleum Industry, Catalytic Cracking Units, Thermal Catalytic Cracking Unit	Refinery II	2911
Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Recovery Furnace/Direct Contact Evaporator	Pulp and Paper Production	2611, 2621, 2631
Pulp and Paper and Wood Products, Sulfate (Kraft) and Soda Pulping, Lime Kiln	Pulp and Paper Production	2611, 2621, 2631
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Particleboard Drying	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Waferboard Dryer	Plywood/Particle Board Manufacturing	2435

Description	Industry	SIC
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Coe Dryer	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Predryer	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Bake Oven	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Fir: Sapwood: Gas-fired Dryer	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Fir: Heartwood Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Larch Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Southern Pine Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Poplar Wood Fired Veneer Dryer	Plywood/Particle Board Manufacturing	2435
Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Gas Veneer Dryer: Pines	Plywood/Particle Board Manufacturing	2435

ENCLOSURE 4

EPA's Information Gathering Authority Under Section 114 of the Clean Air Act

Under Section 114 of the Act (42 U.S.C. 7414), Congress has given the U.S. Environmental Protection Agency broad authority to secure information needed "(a) for the purpose (i) of developing or assisting in the development of any implementation plan under Section 110 or 111(d), any standard of performance under Section 111, or any emission standard under Section 112 (ii) of determining whether any person is in violation of any such standard or any requirement of such a plan, or (iii) carrying out any provision of this Act." Among other things, Section 114 authorizes EPA to make inspections, conduct tests, examine records, and require owners or operators of emission sources to submit information reasonably required for the purpose of developing such standards. In addition, the EPA Office of General Counsel has interpreted Section 114 to include authority to photograph or require submission of photographs of pertinent equipment, emissions, or both.

Under Section 114, EPA is empowered to obtain information described by that section even if you consider it to be confidential. You may, however, request that EPA treat such information as confidential. Information obtained under Section 114 and covered by such a request will ordinarily be released to the public only if EPA determines that the information is not entitled to confidential treatment.¹ Procedures to be used for making confidentiality determinations, substantive criteria to be used in such determinations, and special rules governing information obtained under Section 114 are set forth in 40 CFR part 2 published in the Federal Register on September 1, 1976 (40 Fed. Reg. 36902).

Pursuant to §2.204(a) of EPA's Freedom of Information Act (FOIA) regulation, in the event a request is received, or it is determined that a request is likely to be received, or EPA desires to determine whether business information in its possession is entitled to confidential treatment even though no request for release of the information has been received, please be advised that EPA will seek, at that time, the following information to support your claim as required by §2.204(e)(4) of EPA's FOIA regulations:

¹Section 114 requires public availability of all emission data and authorizes disclosure of confidential information in certain circumstances. See 40 Fed. Reg. 36902-36912 (September 1, 1976).

1. Measures taken by your company to guard against undesired disclosure of information to others;
2. The extent to which the information has been disclosed to others, and the precautions taken in connection therewith;
3. Pertinent confidentiality determinations, if any, by the EPA or other Federal agencies and a copy of any such determinations or reference to it, if available; and
4. Whether your company asserts that disclosure of the information would be likely to result in substantial harmful effects on the business' competitive position and, if so, what those harmful effects would be, why they should be viewed as substantial, and an explanation of the causal relationship between disclosure and such harmful effects.

ENCLOSURE 5

7042 Federal Register / Vol 56, No. 35 / Thursday, February 21, 1991 / Notices

Dated: February 14, 1991.
Paul Lapsley,
Director, Regulatory
Management Division.
[FR Doc 91-4113 Filed 2-20-
91; 8:45 am]
BILLING CODE 8580-50-M

[AD-FRL-3008-3]

Disclosure of Emission Data
Claimed as Confidential Under
Sections 110 and 114(c) of
the Clean Air Act

AGENCY: Environmental
Protection Agency (EPA).
ACTION: Notice of policy on
public release of certain
emission data submitted under
sections 110 and 114(c) of
the Clean Air Act (CAA).

SUMMARY: Section 114(c) of
the CAA excludes emission
data from the general
definition of trade secret
information. Certain classes
of data submitted to the EPA
under sections 110 and 114(a)
of the CAA are emission data,
and, as such, cannot be
withheld from disclosure as
confidential pursuant to
section 1905 of title 18 of
the United States Code. This
notice clarifies EPA's
current policy, and solicits
comment regarding that policy
and categories of data which
it considers excluded from
trade secret definition.
DATES: Written comments
pertaining to this notice are
requested by April 22, 1991.
ADDRESSES: Submit comments
to: Nancy D. Riley,
U.S. Environmental Protection
Agency, Emission Standards
Division, Pollutant
Assessment Branch (MD-13),
Research Triangle Park, NC
27711.
FOR FURTHER INFORMATION
CONTACT: Timothy Mohin
(telephone: (919) 541-5349
commercial/FTS 629-5349) or
Karen Blanchard (telephone:
(919) 541-5503 commercial/FTS

629-5503), Pollutant
Assessment Branch (MD-13),
Emission Standards Division;
or Thomas Rosendahl
(telephone: (919) 541-5404
commercial/FTS 629-5404),
National Air Data Branch
(MD-14), Technical Support
Division; U.S. Environmental
Protection Agency, Research
Triangle Park, North Carolina
27711.

SUPPLEMENTARY INFORMATION:
The EPA routinely uses the
authority of sections 110 and
114(a) of the CAA to gather
technical information from
industries involved in
operations that lead to
emissions of pollutants to
the ambient air. This
information has been used,
among other things, to better
characterize emitting
facilities and to evaluate
the need for and impacts of
potential regulation.

Information requests under
sections 110 and 114(a) of
the CAA typically include
questions on uncontrolled and
controlled emission rates and
emission parameters of the
pollutant or group of
pollutants of concern. The
respondents sometimes claim
that its response constitutes
trade secret information, and
thus, should be treated as
confidential. Claims of
confidentiality may be made
under section 114(c) of the
CAA, which states "* * * upon
a showing satisfactory to the
Administrator by any person
that records, reports, or
information, or a particular
part thereof, (other than
emission data) to which the
Administrator has access
under this section if made
public, would divulge methods
or processes entitled to
protection as trade secrets
of such person, the
Administrator shall consider
such * * * confidential in
accordance with the purposes
of section 1905 of title 18
of the United States Code *
*." If the Administrator so

determines, the information
is not disclosable to the
public.

However, section 114(c) of
the CAA provides that
information claimed to be a
trade secret but which
constitutes emission data may
not be withheld as
confidential. Although
typically the EPA evaluates
whether information
constitutes emission data on
a case-by-case basis, it
believes that some kinds of
data will always constitute
emission data within the
meaning of section 114(c).
The purpose of this notice is
to describe, without
attempting to be
comprehensive, that
information which the EPA
generally considers to be
emission data, and which
cannot qualify as
confidential under either
section 114(c) or section 110
(as set forth in 41 CFR
51.321, 51.322, and 51.323)
of the CAA. The EPA is
issuing this notice to
clarify its policy and
procedures, to facilitate the
use of these data in
automated data systems and
computer-based simulation
models, and to expedite
processing of claims for
confidentiality or requests
for disclosure.

The EPA presently
determines that data
submitted to it as emission
data does not qualify as
confidential if it meets the
following definition under 40
CFR 2.301(a)(2)(i):

a. Definitions. For the
purpose of this section, (1)
Act means the Clean Air Act,
as amended, 42 U.S.C. 7401
et seq. (2)(i) *Emission data*
means, with reference to any
source of emission of any
substance into the air.

(A) Information necessary
to determine the identity,
amount, frequency,
concentration, or other
characteristics (to the

extend related to air quality) of any emission which has been emitted by the source (or of any pollutant resulting from any emission by the source), or any combination of the foregoing:

(B) Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of the emission which, under an applicable standard or limitation, the source was authorized to emit (including, to the extent necessary for such purposes, a description of the manner or rate of operation of the source), or any combination of the foregoing.

(C) A general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source).

The table below lists the specific data fields which the EPA presently considers to constitute emission data and provides a brief description of what each data field describes. The descriptions are intended to provide general information. This list is not exhaustive, and, therefore, other data might be found, in a proper case, to constitute emission data.

Emission Data Fields

Facility Identification:
The following data fields are needed to establish the identity and location of emission sources. This shall also include a description or an identifier of the device, installation, or operation constituting the source. These data are used to locate sources for dispersion evaluation and exposure modeling.

Plant Name and related point identifiers
Address
City
County
AQCR (Air Quality Control Region)
MSA, PMSA, CMSA (Metropolitan Statistical Areas)
State
Zip Code
Ownership and point of contact information
Locational Identifiers:
Latitude & Longitude, or UTM Grid Coordinate
SIC (Standard Industrial Classification)
Emission point, device or operation description information
SCC (Source Classification Codes)
Emission Parameters: The following data fields are needed to establish the characteristics of the emissions. This information is needed for the analyses of dispersion and potential control equipment.
Emission type
(e.g., nature of emissions such as CO₂), particulate or a specific toxic compound, and origin of emissions such as process vents, storage tanks or equipment leaks)
Emission rate
(e.g., the amount released to the atmosphere over time such as kg/yr or lbs/yr)
Release height
(e.g., height above ground level where the pollutant is emitted to the atmosphere)
Description of terrain and surrounding structures
(e.g., the size of the area associated with adjacent structures in square meters and terrain descriptions such as mountainous, urban, or rural)
Stack or vent diameter at point of emissions
(e.g., the inside diameter of vent at the point of emissions to the atmosphere in meters)
Release velocity

(e.g., velocity of release in m/sec)
Release temperature
(e.g., temperature of release at point of release in degrees Kelvin)
Frequency of release
(e.g., how often a release occurs in events per year)
Duration of release
(e.g., the time associated with a release to the atmosphere)
Concentration
(e.g., the amount of an emission stream constituent relative to other stream constituents expressed as parts per million (ppm), volume percent, or weight percent)
Density of the emissions stream or average molecular weight
(e.g., density expressed as fraction or multiple of the density of air: molecular weight in g/g-mole)
Boiler or process design capacity
(e.g., the gross heating value of fuel input to a boiler at its maximum design rate)
Emission estimation method
(e.g., the method by which an emission estimate has been calculated such as material balance, source test, use of AP-42 emission factors, etc.)
Percent space heat
(e.g., the percent of fuel used for space heating)
Hourly maximum design rate
(e.g., the greatest operating rate that would be expected for a source in a 1-hour period)

The EPA has determined that these data are emission data and releasable upon request. This determination applies to data currently held by EPA as well as to information submitted to EPA in the future. Future requests for information under sections 110 and 114 of the CAA will indicate that these emission

data will not be held
confidential. This
determination applies only to
the data listed in the table.
Determinations will continue
to be made on a case-by-case
basis for data not specified
in this generic
determination.

After consideration of
comments on this policy, a
revised policy/ determination
may be published.

ENCLOSURE 6

DESIGNATION OF AUTHORIZED REPRESENTATIVE
FOR STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES
(SECTION 111) AND SOLID WASTE COMBUSTION (SECTION 129),
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS
(SECTION 112), AND FEDERAL OZONE MEASURES (SECTION 183)

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December 1995

Summary of OAQPS
Procedures for Safeguarding Clean Air Act (CAA)
Confidential Business Information (CBI)

1. Purpose

This memorandum describes Agency policy and procedures pertaining to the handling and safeguarding of information that may be entitled to confidential treatment for reasons of business confidentiality by the OAQPS, Office of Air and Radiation, U.S. Environmental Protection Agency.

2. Other Applicable Documents:

- a. Clean Air Act as amended.
- b. 40 CFR, Chapter 1, Part 2, Subpart B - Confidentiality of Business Information.
- c. EPA Security Manual, Part II, Chapters 8 and 9.
- d. Clean Air Act Confidential Business Information Security Manual (June 1995 edition).

3. Exception:

This document was prepared as a summary of data gathering and handling procedures used by the OAQPS, EPA. Nothing in this document shall be construed as superseding or being in conflict with any applicable regulations, statutes, or policies to which EPA is subject.

4. Definition:

Confidential Business Information - Information claimed by the provider to be confidential. This information may be identified with such titles as trade secret, secret, administrative secret, company secret, secret proprietary, privileged, administrative confidential, company confidential, confidential proprietary, or proprietary. **NOTE:** These markings should not be confused with the classification markings of National Security information identified in Executive Order 11652.

5. Background

Section 114 (c) of the Clean Air Act as amended reads as follows:

“Any records, reports, or information obtained under subsection (a) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof, (other than emission data) to which the Administrator has access under this section if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such records, report, or information or particular portion thereof confidential in accordance with the purposes of Section 1905 of Title 18 of the United States Code, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act or when relevant in any proceeding under this Act.”

The treatment of CBI by the U.S. EPA, including data obtained under Section 114 of the Clean Air Act, is governed by Title 40, Part 2, of the Code of Federal Regulations. These regulations require EPA offices to include a notice with each request for information to inform the business of: (1) its right to assert a claim of confidentiality covering part or all of the information, (2) the method for asserting a claim, and (3) the effect of failure to assert a claim at time of submission. In addition, the regulations: (1) set forth procedures for the safeguarding of confidential information; (2) contain provisions for providing confidential information to authorize representatives; (3) contain provisions for the release of information to the Congress, Comptroller General, other Federal agencies, State and local governments, and Courts; (4) permit the disclosure of information within EPA to employees with an official need for the information; and (5) prohibit wrongful use of such information and cite penalties for wrongful disclosure. Further, the regulations contain the Agency’s basic rule concerning the treatment of requests for information under the Freedom of Information Act (5 U.S.C. 552).

6. Procedures:

a. Request for Information

Each request for information made under the provisions of Section 114(a) is signed by the Division Director. The request includes standard enclosure “EPA’s Information Gathering Authority Under Section 114 of the Clean Air Act,” which was designed to meet the requirement of 40 CFR Part 2 discussed above.

b. Receipt of CAA Confidential Business Information

Upon receipt of information for which confidential treatment has been requested, the Office of the Director (OD) directs the logging of the material and the establishment of a permanent file. If confidential treatment is requested, but is not specifically marked, the material will be stamped "Subject to Confidentiality Claim." If part of the material is claimed to be confidential, that portion is marked "Subject to Confidentiality Claim." In compliance with Sections 2.204 and 2.208 of 40 CFR Part 2, the Group Leader responsible for the requested information reviews the information to determine whether it is likely to be confidential in contrast to being available in the open literature, whether it is emission data, and whether it likely provides its holder with a competitive advantage. If the information is clearly not confidential, the Group Leader prepares a letter for signature of the Division Director, ESD, to notify the business of this finding. If the information is possibly confidential, the Group Leader sends a memorandum to inform the OD, ESD, of this finding, gives a brief description of the material (what it is, how many pages, etc.), identifies it with the correct ESD project number, and lists those persons who are authorized to have access to the information. The information and memorandum are hand carried to the OD and placed in the CBI files with the material. A record of who will see the information (Attachment A) is also filed with the folder containing the information. If CAA CBI is received from the owner via an authorized representative or a third party, the same procedure is followed, with the addition of clearly identifying the information and its source. By regulation, information for which confidential treatment is requested must be so marked or designated by the submitter. The EPA takes additional measures to ensure that the proprietary designation is uniformly indicated and immediately observable. All unmarked or undesignated information (except as noted below) is freely releasable.

c. Storage of CAA Confidential Business Information

Folders, documents, or material containing CAA CBI (as defined) shall be secured, at a minimum, in a combination-locked cabinet. Normal procedure is to secure this information in a cabinet equipped with a security bar and locked using a four-way, changeable combination padlock. In addition, the entrance door to the CBI storage room is equipped with a changeable combination simplex lock. The locked files are under the control of the OD.

Knowledge of the combinations of the locking devices is limited to the Document Control Officer (DCO) and the minimum number of persons required to effectively maintain normal business operations. Records of the locking device combination are stored elsewhere in conformance with the requirements of the EPA Security Manual.

Combinations of the locks are normally changed whenever a person with knowledge of the combinations is transferred, terminates employment, no longer authorized access, or whenever the possibility exists that the combinations may have been subject to compromise.

Files may be checked out upon confirmation that the requesting person is authorized to receive the information. All confidential files may be returned no later than 4:30 p.m. on the same

day they are removed. The intended user must sign the CBI Control Record when the file is checked out.

The individual who signs out a confidential file is responsible for its safekeeping. The file must not be left unattended. The information must not be disclosed to any non-authorized personnel.

Storage procedures for CAA CBI by an authorized representative of EPA (see Section d. below) must be, at a minimum, as secure as those established for EPA offices within OAQPS. Whenever CBI is removed from the EPA files to be transmitted to an authorized representative, notation is placed in the file indicating what information was transmitted, the date, and the recipient. The authorized representative returns a signed receipt of the DCO.

d. Access to CAA Confidential Business Information

Only authorized EPA employees may open a distribute CAA CBI.

Only employees who require and are authorized access to CAA CBI in the performance of their official duties are permitted to review documents and, upon receiving a confidential document, must sign and date the form shown in Attachment A to certify their access to the document.

The CBI files are controlled by the OD, ESD, and managed by an authorized federal employee. Access to the information is limited to those persons having a need to know in performing their official duties.

The Group Leader having primary interest in the CAA CBI provides a memorandum for the record designating those personnel who are authorized to use CBI in a program under which CBI can be requested. No person is automatically entitled to access based solely on grade, position, or security clearance. The names of persons granted access to CAA CBI are placed on the Clean Air Act CBI access list, which indicates the "specific" CBI each person is permitted to see. The Access List is reviewed and updated periodically.

Companies under contract to perform work for the EPA may be designated authorized representatives of EPA if such designation is necessary in order for the contractor to carry out the work required by the contract. As authorized representatives, contractors may be granted access to CAA CBI by the Director, ESD. The following conditions apply when it has been determined that disclosure is necessary:

(1) The contractor designated as a representative and its employees (a) may use such confidential information only for the purpose of carrying out the work required, (b) must refrain from disclosing the information to anyone other than EPA without having received from EPA prior written approval of each affected business or of an EPA legal office, and (c) must return to EPA all copies of the information (and any abstracts or excerpts therefrom) upon request or whenever the information is no longer required for the performance of the work.

(2) The authorized contractor designated as a representative must obtain a written agreement from each of its employees who will have access to the information. A copy of each employee agreement (Attachment B) must be furnished to EPA before access is permitted.

(3) The contractor designated as an authorized representative must agree that the conditions in the contract concerning the use and disclosure of CAA CBI are included for the benefit of, and shall be enforceable by, both EPA and any affected business having a proprietary interest in the information.

Information may be released to or accessed by EPA employees other than OAQPS employees only upon approval of the Director, ESD.

Requests for CAA CBI from other Federal agencies, Congress, the Comptroller General, Courts, etc., are processed by the OD, ESD in accordance with 40 CFR 2, Subpart B.

Requests under the Freedom of Information Act are handled in accordance with 40 CFR 2, Subpart A. The Freedom of Information Act Coordinator must be consulted prior to responding to any request for information if a claim of confidentiality has been asserted or if there is reason to believe that a claim might be made if the business knew release was intended.

e. Use and Disclosure of CAA Confidential Business Information

The CAA CBI as defined may not be used in publications, supporting document, memoranda, etc., that become a part of the public domain, except as provided for in 40 CFR 2 Subpart B.

The CAA CBI may not be summarized without the approval of the Group Leader responsible for the CAA CBI. Any authorized reproductions must be logged into the CAA CBI document tracking system and treated according to the same procedures applicable to the original confidential material.

The EPA generated documents or material, or extracts of information containing CAA CBI, must be stamped "Subject to Confidentiality Claim" and a cover sheet must be attached to identify the material as CBI.

f. Handling of Other Information

Reports, memoranda, documents, etc., prepared by EPA or its authorized representatives are not normally circulated outside EPA for comment or review prior to publication except in such cases as described above (6.d.3) wherein CBI is expressly included. However, because industrial-data-gathering visits, plant inspections, and source testing can involve inadvertent receipt of CAA CBI, it is the policy of OAQPS to protect all parties involved in the following manner.

Prior to or at the inception of a plant inspection, data-gathering visit, or source test, EPA or its authorized representative discusses with a responsible industry official the information sought, how it is to be used, and how it is to be protected. A copy of this summary is usually provided to the industry official being consulted.

Following an inspection, visit, or test, a trip report is prepared to include, as practicable, all information received by EPA or its authorized representative during the visit or test. The report may be prepared by either EPA or its authorized representative. The draft of that report is clearly identified, on an attached, colored cover sheet as "Confidential Pending Determination." A second copy of the draft trip report is forwarded by EPA to the responsible industry official for review. The responsible industry official is requested by cover letter to review the report, clearly mark any information considered to be confidential, and return the marked up-report to the responsible EPA employee within 2 weeks of receipt. The original draft is kept in the CBI "pending" file until the marked-up copy is returned by the business firm.

When the reviewed copy of the report, as marked by the responsible plant official, is received by EPA, information designated confidential is placed in the CBI files as described above. The original draft of the trip report is edited to delete the confidential information and to accommodate technical changes, and the trip report is issued.

2 Attachments

**CAA CONFIDENTIAL BUSINESS INFORMATION
CONTROL RECORD**

CAA CBI Form 1 (Rev. 6/95)

Attachment B

1. AUTHORIZATION FOR ACCESS TO CAA CBI CONTRACTOR EMPLOYEES		
FULL NAME	POSITION	
SSN	CONTRACTOR	
<p>It is the responsibility of each Authorizing Official* to ensure that the employees under his/her supervision who require access to CAA CBI:</p> <ol style="list-style-type: none">1. Sign the Confidentiality Agreement for EPA Employees2. Are fully informed regarding their security responsibilities for CAA CBI.3. Obtain access only to that CAA CBI required to perform their official duties.		
SIGNATURE OF AUTHORIZATION OFFICIAL*	TELEPHONE NO.	DATE
TITLE	LOCATION	
II. CONFIDENTIALITY AGREEMENT FOR CONTRACTOR EMPLOYEES		
<p>I understand that I will have access to certain Confidential Business Information submitted to EPA or its authorized representatives under the Clean Air Act (CAA). This access is granted in accordance with my official duties as an employee of the Environmental Protection Agency contractor.</p> <p>I understand that CAA CBI may not be disclosed except as authorized by CAA and Agency regulations. I understand that I am liable for a possible fine of up to \$1,000 and/or imprisonment for up to 1 year if I willfully disclose CAA CBI to any person not authorized to receive it. In addition I understand that I may be subject to disciplinary action for violation of this agreement with penalties ranging up to and including dismissal.</p> <p>I agree that I will treat any CAA CBI furnished to me as confidential and that I will follow the procedures set forth in the CAA Confidential Business Information Security Manual.</p> <p>I have read and understand these procedures.</p>		
SIGNATURE	TELEPHONE NO.	DATE
III. HAVING COMPLETE REQUIRED TRAINING AND PASSED REQUIRED TEST, THE ABOVE-NAMED EMPLOYEE IS HEREBY AUTHORIZED TO HAVE ACCESS TO CAA CBI.		
SIGNATURE CONTRACTOR/DCO	TELEPHONE NO.	DATE

ENCLOSURE 8

MATERIAL ID CODES

<u>Gas</u>		<u>Solid</u>	
Biogas (includes sewage digester gas)	BG	Agriculture Waste	AG
Blast furnace gas	BF	Bagasse	BA
CO gas	CO	Coal	
Coke oven gas	CG	Anthracite	CA
Landfill gas	LG	Bituminous	CB
Natural gas	NG	Sub-bituminous	CS
Petrochemical process gas	PP	Lignite	CL
Petroleum refining process gas	RG	Construction derived waste	CW
Hydrogen	H2	Decorative laminate/cast polymer scrap	DL
LPG	LP	Industrial solid waste (non-hazardous)*	IW
Process coproduct gas*	PG	Industrial sludge*	IS
Other Gas*	OG	Industrial Wastewater sludge*	WS
		Medical Waste	MW
<u>Liquid</u>		Municipal/Commercial solid waste	
No. 2 Distillate	D2	(See Enclosure 1 for a definition of each of the	
No. 4 Fuel Oil	D4	following)	
No. 5 Fuel Oil	D5	Type 0 -Trash	M0
No. 6 Residual Oil	6R	Type 1 - Rubbish	M1
Cyanide Waste	CY	Type 2 - Refuse	M2
Diesel Fuel	DF	Type 3 - Garbage	M3
JP-8 Aviation Fuel	J8	Pathological	
Orimulsion	OR	Animal Remains	AR
Process coproduct liquid*	PL	Human Remains	HR
Waste Oil	WO	Peat	PE
Aqueous Waste*	AQ	Petroleum coke	PT
Liquid Waste*	LW	Plastics	PC
Other Liquid*	OL	Process coproduct solid*	PS
		Process engineered fuels	PF
		Refuse derived fuel	RF
		Tires	TI
		Waste Coal	
		Anthracite (culm)	AC
		Bituminous (gob)	GO
		Wood	
		Dried milled lumber	WL
		Timber	
		Little Bark	W?
		Mostly Bark	WB
		Whole Tree	WT
		Adulterated Coproduct	
		Plywood/particleboard/finished	PW
		Treated*	TW
		Other Wood*	OW
		Wood composed of > 20% sander dust	SD
		Other Solid*	OS

***If code is used, provide brief description in response to question 6.e.**

ENCLOSURE 9

CONTROL DEVICE AND TECHNIQUE CODES

Code	Description	Code	Description
001	Wet Scrubber - High Efficiency	051	Tray-type Gas Absorption Column
002	Wet Scrubber - Medium Efficiency	052	Spray Tower
003	Wet Scrubber - Low Efficiency	053	Venturi Scrubber
004	Gravity Collector	055	Impingement Plate Scrubber
007	Centrifugal Collector - High Efficiency	056	Dynamic Separator (Dry)
008	Centrifugal Collector - Med Efficiency	057	Dynamic Separator (Wet)
009	Centrifugal Collector - Low Efficiency	058	Mat. Or Panel Filter
010	Electrostatic Precipitator - High Efficiency	059	Metal Fabric Filter Screen
011	Electrostatic Precipitator - Medium Efficiency	063	Gravel Bed Filter
012	Electrostatic Precipitator - Low Efficiency	064	Annular Ring Filter
013	Gas Scrubber, General	066	Molecular Sieve
014	Mist Eliminator - High Velocity	067	Wet Lime Slurry Scrubbing
015	Mist Eliminator - Low Velocity	068	Alkaline Fly Ash Scrubbing
016	Fabric Filter - High Temp	069	Sodium Carbonate Scrubbing
017	Fabric Filter - Medium Temp	070	Sodium-Alkali Scrubbing
018	Fabric Filter - Low Temp	071	Fluid Bed Dry Scrubber
019	Catalytic Afterburner	221	Spray Dryer Scrubber
020	Catalytic Afterburner w/ Heat Exchanger	075	Single Cyclone
021	Direct Flame Afterburner	076	Multiple Cyclone W/O Fly Ash Reinjection
022	Direct Flame Afterburner w/ Heat Exchanger	077	Multiple Cyclone W/ Fly Reinjection
024	Modified Furnace/Burner Design	078	Baffle
025	Staged Combustion	079	Dry Electrostatic Granular Filter
026	Flue Gas Recirculation	083	Chemical Neutralization
027	Reduced Combustion - Air Preheat	084	Activated Clay Adsorption
028	Steam Or Water Injection	085	Wet Cyclonic Separator
029	Low Excess-Air Firing	086	Water Curtain
030	Fuel - Low Nitrogen Content	098	Moving Bed Dry Scrubber
032	Ammonia Injection	101	High Efficiency Particulate Air Filter
065	Selective Catalytic Reduction	200	Catalytic Oxidizer (for CO & VOC
206	Low Nox Burners	201	Duct Sorbent Injection (dry)
209	Urea Injection	202	Evaporative Cooler
212	Air to Fuel Ratio Control	203	Furnace Sorbent Injection (dry)
034	Well-Lord/Sodium Sulfur Scrubbing	220	Wet Ionizing Scrubber
035	Magnesium Oxide Scrubbing	221	Ceramic Filter
036	Dual Alkali Scrubbing	099	Other Devices
038	Ammonia Scrubbing		
039	Catalytic Oxidation - Flue Gas Desulfurization		
042	Wet Limestone Injection		
047	Vapor Recovery System		
222	Carbon Injection		
048	Activated Carbon Adsorption		
049	Liquid Filtration System		
050	Packed-Gas Absorption Column		

ATTACHMENT 6

PROCESS HEATER WORK GROUP REPORT

SUBJECT: Recommendation of definition and delineation of units to be covered by any process heater-related ICCR standard

FROM: Process Heaters Work Group
Industrial Combustion Coordinated Rulemaking

TO: Coordinating Committee
Industrial Combustion Coordinated Rulemaking

Recommendations

The process heaters work group makes the following consensus recommendations to the Coordinating Committee:

1. The definition of “process heater” shall be as follows:

“Process heater” means an enclosed device using controlled flame where the device’s primary purpose is to transfer heat:
 - a. To a process fluid, or
 - b. To a process material that is not a fluid, or
 - c. To a heat transfer material for use in a process unit (not including generation of steam).
2. The universe of process heaters shall be divided into two categories, indirect-fired and direct-fired, with the respective definitions being as follows:

“Indirect-fired process heater” means any process heater in which the combustion gases do not mix with, or exhaust to the atmosphere from the same stack(s), vent(s), etc. with, any gases emanating from the process or material being processed.

“Direct-fired process heater” means any process heater in which the combustion gases mix with and exhaust to the atmosphere from the same stack(s), vent(s), etc. with gases originating with the process or material being processed.
3. Any standard developed for process heaters as a result of work conducted by the ICCR process shall focus on “indirect-fired process heaters.”
4. Process heaters covered under MACT standards for another source category shall not be covered under any standard developed for process heaters as a result of work conducted by the ICCR process. It is recommended that the EPA be asked to notify each respective project team for these source categories of this decision and also to

inform each team that the provisions of section 129 should also be followed, where applicable (e.g, waste firing).

5. The Coordinating Committee shall recommend to the EPA that other means be examined for determining the regulatory status of direct-fired process heaters not already included in another source category MACT standard. The process heaters work group provides in the attached tables recommendations to the Coordinating Committee for certain categories of direct-fired process heaters.
6. Information gathering efforts for all waste- or non-fossil fuel fired process heaters shall proceed under the EPA section 114 data gathering effort. This effort will acquire additional information on waste- and non-fossil fuel firing by process heaters. Information on waste- and non-fossil fuel firing by direct-fired process heaters will be passed on to the EPA.

Background

To determine the population of process heaters that could potentially be covered by any ICCR-developed standard (section 112 or 129), the Aerometric Information Retrieval Service (AIRS) and the Ozone Transport Assessment Group (OTAG) data bases were combined. This combined data base (termed the ICCR data base) was then enhanced with additional data obtained from individual State and local agencies. These collective data bases are based on the use of Source Classification Codes (SCC) (assigned to each individual type of emission point) and Source Identification Codes (SIC) (assigned to each industry category). This process resulted in numerous pieces of process equipment being identified as "process heaters." The definition of process heater was taken to be as follows:

"Process heater" means an enclosed device using controlled flame where the devices's primary purpose is to transfer heat:

- a. To a process fluid, or
- b. To a process material that is not a fluid, or
- c. To a heat transfer material for use in a process unit (not including generation of steam).

In gathering information and data related to process heaters, it became apparent that there are two distinct classes of process heaters, indirect-fired and direct-fired. Indirect-fired process heaters are those in which the combustion source, or flame, and products of combustion are kept separate from the process material and its emissions. Exhaust gases from the process heater are vented to the atmosphere separate from those of the process material. The definition for this class of process heater is as follows:

"Indirect-fired process heater" means any process heater in which the combustion gases do not mix with, or exhaust to the atmosphere from the

same stack(s), vent(s), etc. with, any gases emanating from the process or material being processed.

Direct-fired process heaters, on the other hand, are those in which either the flame or the products of combustion, or both, are in contact, and may intermingle, with the process material or its emissions. The combustion exhaust gases are vented to the atmosphere along with the exhaust gases from the process material. The definition for this class of process heater is as follows:

“Direct-fired process heater” means any process heater in which the combustion gases mix with and exhaust to the atmosphere from the same stack(s), vent(s), etc. with gases originating with the process or material being processed.

The universe of direct-fired process heaters is potentially much larger and more diverse than that of indirect-fired process heaters. Indirect-fired process heater emissions are composed entirely of the products of combustion. In addition, the design and operation of indirect-fired process heaters is believed to be fairly consistent. Emissions from direct-fired process heaters (e.g., kilns, dryers, calciners), on the other hand, consist not only of products of combustion but also of emissions directly related to the process unit and material. Furthermore, the design and operation of direct-fired process heaters varies widely from industry to industry and between applications within a given industry. This in itself does not preclude such categories from being combined and examined in a generic sense, looking broadly across various industries. In fact, the Work Group recognizes that this may have previously been done by the EPA.

In addition, it was determined that many of the direct-fired process heaters identified in the ICCR data base are already included in specific source categories scheduled for development of MACT standards under section 112. As a key goal of the ICCR process “...is to avoid dual coverage of sources by more than one regulation...”,² process heaters included in one of these individual MACT categories should, at this time, be excluded from the ICCR evaluation. To simplify all aspects of the ICCR process (e.g., information gathering, emission testing, regulatory development), it was decided to develop a strategy that would allow for a more generic ICCR approach yet not exclude any process heaters from potential HAP regulation. The indirect-fired vs. direct-fired break-down appears to allow this strategy to proceed most effectively.

It should be noted that none of the categorizations now being recommended preclude reevaluation by either the Work Group or by the Coordinating Committee in the future. As further information becomes available, additional recommendations may be made regarding disposition of categories of process heaters for regulatory development (e.g., include in the ICCR effort, recommend to the EPA that other means be pursued).

“Industrial Combustion Coordinated Rulemaking: Organizational Structure and Process,”
January 1997, Revision 0. p. 9.

The list of “process heaters” from the ICCR data base has been sorted by category of recommended approach for regulatory development. These recommendations are presented in Tables 1 through 5 attached and are discussed below.

Process Heaters Recommended to Remain in the ICCR for Regulatory Development

Table 1 presents those process heaters, by SCC, that are believed to be indirect-fired units. It is recommended that these process heaters be the focus of any standard that may result from the ICCR process. It should be noted that there are certain SCC categories that merit further investigation to determine that they are in fact indirect-fired units. Should any be found to be direct-fired units, further recommendations would be forthcoming. In addition, should any units be found to fall under another MACT category or standard (e.g., ethylene cracking units), regulation of such units would be left to that project. Of the approximately 11,300 units in the initial version of the ICCR data base, over 63 percent are to be found in the petroleum and chemical industries.

Process Heaters Recommended for Coverage Under Another MACT Standard

Table 2 presents those process heaters, by SCC, that appear to be included in the indicated MACT project. Most of these process heaters are also believed to be direct-fired units. It is recommended that these process heaters be covered by the MACT standard that may result from the indicated project and not receive any focus under the ICCR process. The appropriate EPA project team should be notified that these units are not going to be investigated by the ICCR project and should be a part of their MACT regulatory development investigation. In addition, the team should be informed that provisions of section 129 should also be included in their regulatory development effort.

Process Heaters Recommended for Coverage by Other Means but Having No Defined MACT

Table 3 presents those process heaters, by SCC, that are believed to be direct-fired units but for which no source category scheduled for MACT development has been identified. It is recommended that no focus be placed on these units under the ICCR process and that the EPA management be made aware of these units and appropriate action taken.

Process Heaters Being Investigated for Inclusion in the ICCR

Table 4 presents those process heaters, by SCC, that are being further investigated to determine the category of process heater involved (i.e., indirect-fired or direct-fired). Indirect-fired units will be added to Table 1 for inclusion in the ICCR. Direct-fired units will be added to Table 2 or 3 as appropriate.

Process Heaters Recommended for Moving to Another ICCR Source Category

Table 5 presents those process heaters, by SCC, that are believed to have been mislabeled as “process heaters” and are recommended for consideration under another ICCR Work Group.

Table 1. Process Heaters Recommended to Remain in the ICCR for Regulatory Development

SCC Code	SCC Description	MACT Project	SIC Code(s)	"Bin"	Count
30190001	Chemical Manufacturing, Fuel Fired Equipment, Distillate Oil (No. 2): Distillate Heaters	ICCR	2869	10 year	20
30190002	Chemical Manufacturing, Fuel Fired Equipment, Residual Oil: Process Heaters	ICCR	2869	10 year	21
30190003	Chemical Manufacturing, Fuel Fired Equipment, Natural Gas: Distillate Heaters	ICCR	2869	10 year	773
30190004	Chemical Manufacturing, Fuel Fired Equipment, Process Gas	ICCR	2869	10 year	71
30290001	Food and Agriculture, Fuel Fired Equipment, Distillate Oil (No. 2)	ICCR *	2077	10 year	21
30290002	Food and Agriculture, Fuel Fired Equipment, Residual Oil	ICCR *	2077	10 year	29
30290003	Food and Agriculture, Fuel Fired Equipment, Natural Gas	ICCR *	2077	10 year	506
30290005	Food and Agriculture, Fuel Fired Equipment, Process Heaters: LPG	ICCR *	2077	10 year	4
30390001	Primary Metal Production, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters	ICCR *	3333	10 year	20
30390002	Primary Metal Production, Fuel Fired Equipment, Residual Oil: Process Heaters	ICCR *	3333	10 year	14
30390003	Primary Metal Production, Fuel Fired Equipment, Natural Gas: Process Heaters	ICCR *	3333	10 year	365
30390004	Primary Metal Production, Fuel Fired Equipment, Process Gas: Process Heaters	ICCR *	3333	10 year	63
30490001	Secondary Metal Production, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters	ICCR *	3300	10 year	11
30490002	Secondary Metal Production, Fuel Fired Equipment, Residual Oil: Process Heaters	ICCR *	3300	10 year	1
30490003	Secondary Metal Production, Fuel Fired Equipment, Natural Gas	ICCR *	3300	10 year	610
30490004	Secondary Metal Production, Fuel Fired Equipment, Process Gas: Process Heaters	ICCR *	3300	10 year	34
30590001	Mineral Products, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters	ICCR *	4463	10 year	78
30590002	Mineral Products, Fuel Fired Equipment, Residual Oil: Process Heaters	ICCR *	4463	10 year	15
30590003	Mineral Products, Fuel Fired Equipment, Natural Gas: Process Heaters	ICCR *	4463	10 year	278
30600101	Petroleum Industry, Process Heaters, Oil-fired	ICCR	2911	10 year	9

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SCC Code	SCC Description	MACT Project	SIC Code(s)	"Bin"	Count
30600102	Petroleum Industry, Process Heaters, Gas-fired	ICCR	2911	10 year	56
30600103	Petroleum Industry, Process Heaters, Oil-fired	ICCR	2911	10 year	470
30600104	Petroleum Industry, Process Heaters, Gas-fired	ICCR	2911	10 year	3198
30600105	Petroleum Industry, Process Heaters, Natural Gas-fired	ICCR	2911	10 year	483
30600106	Petroleum Industry, Process Heaters, Process Gas-fired	ICCR	2911	10 year	798
30600107	Petroleum Industry, Process Heaters, LPG-fired	ICCR	2911	10 year	12
30600108	Petroleum Industry, Process Heaters, Landfill Gas-fired	ICCR	2911	10 year	4
30600111	Petroleum Industry, Process Heaters, Oil-fired (No. 6 Oil) > 100 Million Btu Capacity	ICCR	2911	10 year	37
30600199	Petroleum Industry, Process Heaters, Other Not Classified	ICCR	2911	10 year	18
30790001	Pulp and Paper and Wood Products, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters	ICCR *	2430	10 year	12
30790002	Pulp and Paper and Wood Products, Fuel Fired Equipment, Residual Oil: Process Heaters	ICCR *	2430	10 year	9
30790003	Pulp and Paper and Wood Products, Fuel Fired Equipment, Natural Gas: Process Heaters	ICCR *	2430	10 year	169
30890001	Rubber and Miscellaneous Plastics Products, Process Heaters, Distillate Oil (No. 2)	ICCR	3079	10 year	1
30890003	Rubber and Miscellaneous Plastics Products, Process Heaters, Natural Gas	ICCR	3079	10 year	169
30890004	Rubber and Miscellaneous Plastics Products, Process Heaters, Liquefied Petroleum Gas (LPG)	ICCR	3079	10 year	1
30990001	Fabricated Metal Products, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters	ICCR *	3431	10 year	10
30990002	Fabricated Metal Products, Fuel Fired Equipment, Residual Oil: Process Heaters	ICCR *	3431	10 year	5
30990003	Fabricated Metal Products, Fuel Fired Equipment, Natural Gas: Process Heaters	ICCR *	3431	10 year	483
31000401	Oil and Gas Production, Process Heaters, Distillate Oil (No. 2)	ICCR	1311	10 year	8
31000402	Oil and Gas Production, Process Heaters, Residual Oil	ICCR	1311	10 year	5

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SCC Code	SCC Description	MACT Project	SIC Code(s)	"Bin"	Count
31000403	Oil and Gas Production, Process Heaters, Crude Oil	ICCR	1311	10 year	64
31000404	Oil and Gas Production, Process Heaters, Natural Gas	ICCR	1311	10 year	1774
31000405	Oil and Gas Production, Process Heaters, Process Gas	ICCR	1311	10 year	48
31000406	Oil and Gas Production, Process Heaters, Propane/Butane	ICCR	1311	10 year	4
31390001	Electrical Equipment, Process Heaters, Distillate Oil (No. 2)	ICCR *	7694	10 year	2
31390003	Electrical Equipment, Process Heaters, Natural Gas	ICCR *	7694	10 year	38
39900601	Miscellaneous Manufacturing Industries, Process Heater/Furnace, Natural Gas	ICCR *	39	10 year	35
39990001	Miscellaneous Manufacturing Industries, Distillate Oil (No. 2): Process Heaters	ICCR *	39	10 year	26
39990002	Miscellaneous Manufacturing Industries, Residual Oil: Process Heaters	ICCR *	39	10 year	20
39990003	Miscellaneous Manufacturing Industries, Natural Gas: Process Heaters	ICCR *	39	10 year	1318
39990004	Miscellaneous Manufacturing Industries, Process Gas: Process Heaters	ICCR *	39	10 year	7
	Total count				11342

* Further investigation necessary to determine whether all in count are indirect-fired process heaters or direct-fired units (e.g., dryers, kilns, etc.)

Table 2. Process Heaters Recommended for Coverage Under Another MACT Standard

SCC Code	SCC Description	MACT Project	SIC Code(s)	“Bin”	Count
30100507	Chemical Manufacturing, Carbon Black Production, Pellet Dryer	Carbon Black Production	2895	10 year	149
30101202	Chemical Manufacturing, Hydrofluoric Acid, Rotary Kiln: Acid Reactor	Hydrogen Fluoride Production	2819	10 year	52
30102104	Chemical Manufacturing, Sodium Carbonate, Monohydrate Process: Rotary Ore Calciner: Gas-fired	Photographic Chemicals Production	2812	10 year	1
30102106	Chemical Manufacturing, Sodium Carbonate, Rotary Soda Ash Dryers	Photographic Chemicals Production	2812	10 year	4
30102822	Chemical Manufacturing, Normal Superphosphates, Curing	Phosphate Fertilizers Production	2874	10 year	2
30102824	Chemical Manufacturing, Normal Superphosphates, Dryer	Phosphate Fertilizers Production	2874	10 year	3
30102907	Chemical Manufacturing, Triple Superphosphate, Granulator: Curing	Phosphate Fertilizers Production	2874	10 year	3
30102922	Chemical Manufacturing, Triple Superphosphate, Curing	Phosphate Fertilizers Production	2874	10 year	2
30102924	Chemical Manufacturing, Triple Superphosphate, Dryer	Phosphate Fertilizers Production	2874	10 year	3
30103022	Chemical Manufacturing, Ammonium Phosphates, Curing	Phosphate Fertilizers Production	2874	10 year	2
30103024	Chemical Manufacturing, Ammonium Phosphates, Dryer	Phosphate Fertilizers Production	2874	10 year	7
30113004	Chemical Manufacturing, Ammonium Sulfate, Caprolactum By-product: Rotary Dryer	Ammonium Sulfate Production-Caprolactum By-Product Plants	2869	10 year	11
30113005	Chemical Manufacturing, Ammonium Sulfate, Caprolactum By-product: Fluid Bed Dryer	Ammonium Sulfate Production-Caprolactum By-Product Plants	2869	10 year	3

SCC Code	SCC Description	MACT Project	SIC Code(s)	"Bin"	Count
30190004	Chemical Manufacturing, Fuel Fired Equipment, Process Gas (Ethylene Cracking Units)	Ethylene	2869	10 year	
30300002	Primary Metal Production, Aluminum Ore (Bauxite), Drying Oven	Alumina Processing	1051	10 year	13
30300105	Primary Metal Production, Aluminum Ore (Electro-reduction), Anode Baking Furnace	Primary Aluminum Production	3334	7 year	52
30300506	Primary Metal Production, Primary Copper Smelting, Ore Concentrate Dryer	Primary Copper Smelting	3331	7 year	8
30300522	Primary Metal Production, Primary Copper Smelting, Slag Cleaning Furnace	Primary Copper Smelting	3331	7 year	2
30300611	Primary Metal Production, Ferroalloy, Open Furnace, Ore Dryer	Ferroalloys Production	3313	7 year	3
30400510	Secondary Metal Production, Lead Battery Manufacture, Lead Reclaiming Furnace	Lead Acid Battery Manufacturing	3691	Deleted	8
30400526	Secondary Metal Production, Lead Battery Manufacture, Lead Reclaiming Furnace	Lead Acid Battery Manufacturing	3691	Deleted	4
30400720	Secondary Metal Production, Steel Foundries, Sand Dryer	Steel Foundries	3324, 3325	10 year	4
30500201	Mineral Products, Asphalt Concrete, Rotary Dryer: Conventional Plant	Asphalt Concrete Manufacturing	2951	10 year	1754
30500205	Mineral Products, Asphalt Concrete, Drum Dryer: Hot Asphalt Plants	Asphalt Concrete Manufacturing	2951	10 year	1160
30500210	Mineral Products, Asphalt Concrete, Asphalt Heater: Waste Oil	Asphalt Processing	2951	10 year	6
30500211	Mineral Products, Asphalt Concrete, Rotary Dryer Conventional Plant with Cyclone	Asphalt Concrete Manufacturing	2951	10 year	53
30500301	Mineral Products, Brick Manufacture, Raw Material Drying	Clay Products Manufacturing	3251	10 year	58
30500304	Mineral Products, Brick Manufacture, Curing	Clay Products Manufacturing	3251	10 year	14
30500307	Mineral Products, Brick Manufacture, Calcining	Clay Products Manufacturing	3251	10 year	6
30500310	Mineral Products, Brick Manufacture, Curing and Firing: Sawdust Fired Tunnel Kilns	Clay Products Manufacturing	3251	10 year	15

SCC Code	SCC Description	MACT Project	SIC Code(s)	“Bin”	Count
30500311	Mineral Products, Brick Manufacture, Curing and Firing: Gas-fired Tunnel Kilns	Clay Products Manufacturing	3251	10 year	176
30500312	Mineral Products, Brick Manufacture, Curing and Firing: Oil-fired Tunnel Kilns	Clay Products Manufacturing	3251	10 year	16
30500313	Mineral Products, Brick Manufacture, Curing and Firing: Coal-fired Tunnel Kilns	Clay Products Manufacturing	3251	10 year	26
30500314	Mineral Products, Brick Manufacture, Curing and Firing: Gas-fired Periodic Kilns	Clay Products Manufacturing	3251	10 year	126
30500316	Mineral Products, Brick Manufacture, Curing and Firing: Coal-fired Periodic Kilns	Clay Products Manufacturing	3251	10 year	21
30500318	Mineral Products, Brick Manufacture, Tunnel Kiln: Wood-fired	Clay Products Manufacturing	3251	10 year	1
30500606	Mineral Products, Cement Manufacturing (Dry Process), Kilns	Portland Cement Manufacturing	3241	7 year	230
30500623	Mineral Products, Cement Manufacturing (Dry Process), Preheater/Precalciner Kiln	Portland Cement Manufacturing	3241	7 year	2
30500706	Mineral Products, Cement Manufacturing (Wet Process), Kilns	Portland Cement Manufacturing	3241	7 year	114
30500801	Mineral Products, Ceramic Clay/Tile Manufacture, Drying	Clay Products Manufacturing	3253	10 year	188
30501201	Mineral Products, Fiberglass Manufacturing, Regenerative Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229	7 year	15
30501202	Mineral Products, Fiberglass Manufacturing, Recuperative Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229	7 year	7
30501205	Mineral Products, Fiberglass Manufacturing, Curing Oven: Rotary Spun (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229	7 year	93
30501207	Mineral Products, Fiberglass Manufacturing, Unit Melter Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229	7 year	10
30501603	Mineral Products, Lime Manufacture, Calcining: Vertical Kiln	Lime Manufacturing	3274	10 year	89

SCC Code	SCC Description	MACT Project	SIC Code(s)	"Bin"	Count
30501604	Mineral Products, Lime Manufacture, Calcining: Rotary Kiln	Lime Manufacturing	3274	10 year	197
30501605	Mineral Products, Lime Manufacture, Calcining: Gas-fired Calcimatic Kiln	Lime Manufacturing	3274	10 year	16
30501606	Mineral Products, Lime Manufacture, Fluidized Bed Kiln	Lime Manufacturing	3274	10 year	13
30501617	Mineral Products, Lime Manufacture, Multiple Hearth Calciner	Lime Manufacturing	3274	10 year	14
30501619	Mineral Products, Lime Manufacture, Calcining: Gas-fired Rotary Kiln	Lime Manufacturing	3274	10 year	1
30501702	Mineral Products, Mineral Wool, Reverberatory Furnace	Mineral Wool Production	3296	7 year	1
30501704	Mineral Products, Mineral Wool, Curing Oven	Mineral Wool Production	3296	7 year	18
30600301	Petroleum Industry, Catalytic Cracking Units, Thermal Catalytic Cracking Unit	Refinery II	2911		62
30700104	Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Recovery Furnace/Direct Contact Evaporator	Pulp and Paper Production	2611, 2621, 2631	7 year	250
30700106	Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Lime Kiln	Pulp and Paper Production	2611, 2621, 2631	7 year	209
30700703	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Particleboard Drying	Plywood/Particle Board Manufacturing	2435	10 year	214
30700704	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Waferboard Dryer	Plywood/Particle Board Manufacturing	2435	10 year	72
30700705	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Coe Dryer	Plywood/Particle Board Manufacturing	2435	10 year	21
30700706	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Predryer	Plywood/Particle Board Manufacturing	2435	10 year	21
30700709	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Bake Oven	Plywood/Particle Board Manufacturing	2435	10 year	28
30700712	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Fir: Sapwood: Gas-fired Dryer	Plywood/Particle Board Manufacturing	2435	10 year	8
30700713	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Fir: Heartwood Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435	10 year	14
30700714	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Larch Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435	10 year	3

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SCC Code	SCC Description	MACT Project	SIC Code(s)	“Bin”	Count
30700715	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Southern Pine Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435	10 year	92
30700716	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Poplar Wood Fired Veneer Dryer	Plywood/Particle Board Manufacturing	2435	10 year	99
30700717	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Gas Veneer Dryer: Pines	Plywood/Particle Board Manufacturing	2435	10 year	2
	Total count				5871

Table 3. Process Heaters Recommended for Regulation by Other Means but Having No Defined MACT

SCC Code	SCC Description	Basis	SIC Code(s)	Count
30100603	Chemical Manufacturing, Charcoal Manufacturing, Batch Kiln	Pyrolysis process; being investigated by Region VII for inclusion on source category list	2861	62
30100604	Chemical Manufacturing, Charcoal Manufacturing, Continuous Kiln	Same as above	2861	7
30111201	Chemical Manufacturing, Elemental Phosphorous, Calciner	Direct-fired process	2819	2
30111202	Chemical Manufacturing, Elemental Phosphorous, Furnace	Direct-fired process	2819	3
30200504	Food and Agriculture, Feed and Grain Country Elevators, Drying	Direct-fired process	5153	444
30200522	Food and Agriculture, Feed and Grain Country Elevators, Counter-flow Dryer	Direct-fired process	5153	2
30200604	Food and Agriculture, Feed and Grain Country Elevators, Drying	Direct-fired process	4221	2706
30200742	Food and Agriculture, Grain Millings, Dry Corn Milling: Grain Drying	Direct-fired process	2041	108
30200773	Food and Agriculture, Grain Millings, Rice: Drying	Direct-fired process	2041	56
30200784	Food and Agriculture, Grain Millings, Soybean: Drying	Direct-fired process	2041	123
30201206	Food and Agriculture, Fish Processing, Direct Fired Dryer	Direct-fired process	2091	9
30201601	Food and Agriculture, Sugar Beet Processing, Pulp Dryer : Coal-fired	Direct-fired process	2063	65
30203104	Food and Agriculture, Export Grain Elevators, Drying	Direct-fired process	4221	17
30203811	Food and Agriculture, Animal/Poultry Rendering, Blood Dryer: Natural Gas Direct Fired	Direct-fired process	2077	1
30300313	Primary Metal Production, By-product Coke Manufacturing, Coal Preheater	Direct-fired process	3312	22
30301403	Primary Metal Production, Barium Ore Processing, Dryers/Calciners	Direct-fired process	3295	123
30400207	Secondary Metal Production, Copper, Scrap Dryer (Rotary)	Direct-fired process	3362	10
30400231	Secondary Metal Production, Copper, Scrap Dryer	Direct-fired process	3362	14
30400807	Secondary Metal Production, Zinc, Concentrate Dryer	Direct-fired process	3341	4
30400901	Secondary Metal Production, Malleable Iron, Flux Furnace	Direct-fired process	3322	3
30402004	Secondary Metal Production, Furnace Electrode Manufacture, Bake Furnaces	Direct-fired process	3624	36
30402201	Secondary Metal Production, Metal Heat Treating, Furnace: General	Direct-fired process	3398	440

SCC Code	SCC Description	Basis	SIC Code(s)	Count
30404901	Secondary Metal Production, Miscellaneous Casting and Fabricating, Wax Burnout Oven	Direct-fired process	3300	18
30404902	Secondary Metal Production, Miscellaneous Casting and Fabricating, Wax Burnout Oven	Direct-fired process	3300	1
30500402	Mineral Products, Calcium Carbide, Coke Dryer	Direct-fired process	2819	13
30500501	Mineral Products, Castable Refractory, Raw Material Dryer	Direct-fired process	3255	25
30500504	Mineral Products, Castable Refractory, Curing Oven	Direct-fired process	3255	58
30500915	Mineral Products, Clay and Fly Ash Sintering, Rotary Kiln	Direct-fired process	3295	13
30500916	Mineral Products, Clay and Fly Ash Sintering, Dryer	Direct-fired process	3295	9
30501211	Mineral Products, Fiberglass Manufacturing, Regenerative Furnace (Textile-type Fiber)	Direct-fired process	3229	1
30501212	Mineral Products, Fiberglass Manufacturing, Recuperative Furnace (Textile-type Fiber)	Direct-fired process	3229	41
30501213	Mineral Products, Fiberglass Manufacturing, Unit Melter Furnace (Textile-type Fiber)	Direct-fired process	3229	4
30501215	Mineral Products, Fiberglass Manufacturing, Curing Oven (Textile-type Fiber)	Direct-fired process	3229	49
30501311	Mineral Products, Frit Manufacture, Rotary Dryer (usually not used with a continuous furnace)	Direct-fired process	2899	2
30501401	Mineral Products, Glass Manufacture, Furnace/General	Direct-fired process	3211	29
30501402	Mineral Products, Glass Manufacture, Container Glass: Melting Furnace	Direct-fired process	3221	203
30501403	Mineral Products, Glass Manufacture, Flat Glass: Melting Furnace	Direct-fired process	3211	72
30501404	Mineral Products, Glass Manufacture, Pressed and Blown Glass: Melting Furnace	Direct-fired process	3229	66
30501414	Mineral Products, Glass Manufacture, Ground Cullet Beading Furnace	Direct-fired process	3211	13
30501501	Mineral Products, Gypsum Manufacture, Rotary Ore Dryer	Direct-fired process	3275	66
30501511	Mineral Products, Gypsum Manufacture, Continuous Kettle: Calciner	Direct-fired process	3275	80
30501512	Mineral Products, Gypsum Manufacture, Flash Calciner	Direct-fired process	3275	39
30501520	Mineral Products, Gypsum Manufacture, Drying Kiln	Direct-fired process	3275	50

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SCC Code	SCC Description	Basis	SIC Code(s)	Count
30501801	Mineral Products, Perlite Manufacturing, Vertical Furnace	Direct-fired process	3295	34
30501901	Mineral Products, Phosphate Rock, Drying	Direct-fired process	1475	42
30501905	Mineral Products, Phosphate Rock, Calcining	Direct-fired process	1475	21
30501906	Mineral Products, Phosphate Rock, Rotary Dryer	Direct-fired process	1475	2
30502102	Mineral Products, Salt Mining, Granulation: Stack Dryer	Direct-fired process	1476	19
30502720	Mineral Products, Industrial Sand and Gravel, Sand Drying: Gas- or Oil-fired Rotary or Fluidized Bed Dryer	Direct-fired process	1442	2
30503202	Mineral Products, Asbestos Milling, Drying	Direct-fired process	1499	1
30503402	Mineral Products, Feldspar, Dryer	Direct-fired process	1499	2
30504033	Mineral Products, Mining and Quarrying of Nonmetallic Minerals, Ore Dryer	Direct-fired process	1400	41
30508909	Mineral Products, Talc Processing, Natural Gas Fired Crude Ore Dryer	Direct-fired process		1
30508955	Mineral Products, Talc Processing, Pellet Dryer	Direct-fired process		3
30800705	Rubber and Miscellaneous Plastics Products, Fiberglass Resin Products, Wax Burnout Oven	Direct-fired process	3079	19
	Total count			5296

Table 4. Process Heaters Being Investigated for Inclusion in ICCR

SCC Code	SCC Description	MACT Project	SIC Code(s)	"Bin"	Count
30100108	Chemical Manufacturing, Adipic Acid, Dryer		2869		1
30104201	Chemical Manufacturing, Lead Alkyl Manufacturing (Sodium/Lead Alloy Process), Recovery Furnace		2869		3
30112541	Chemical Manufacturing, Chlorine Derivatives, Vinyl Chloride: Cracking Furnace		2869		3
30490023	Secondary Metal Production, Fuel Fired Equipment, Natural Gas		3300		4
30490031	Secondary Metal Production, Fuel Fired Equipment, Distillate Oil: Furnaces		3300		5
30490033	Secondary Metal Production, Fuel Fired Equipment, Natural Gas: Furnaces		3300		355
30490034	Secondary Metal Production, Fuel Fired Equipment, Process Gas: Furnaces		3300		36
30490035	Secondary Metal Production, Fuel Fired Equipment, Propane		3300		1
30790021	Pulp and Paper and Wood Products, Fuel Fired Equipment, Distillate Oil (No. 2)		2430		1
39990022	Miscellaneous Manufacturing Industries, Residual Oil		39		1
	Total count				410

Table 5. Process Heaters Recommended for Moving to Another ICCR Source Category

SCC	SCC Description	MACT Project	SIC	"Bin"	Count
3089001 3	Rubber and Miscellaneous Plastics Products, Process Heaters, Natural Gas: Incinerators	ICCR (incinerators)	3079	10 year	17
3090250 1	Fabricated Metal Products, Drum Cleaning/Reclamation, Drum Burning Furnace	ICCR (incinerators)	5085	10 year	60
3100041 1	Oil and Gas Production, Process Heaters, Distillate Oil (No. 2):	ICCR (boilers)	1311	10 year	4
3100041 4	Oil and Gas Production, Process Heaters, Natural Gas: Steam Generators	ICCR (boilers)	1311	10 year	122
3100041 5	Oil and Gas Production, Process Heaters, Process Gas: Steam Generators	ICCR (boilers)	1311	10 year	41
	Total count				244

Attachment 4
Expanded Tables Used to Review Recommendations
to the Coordinating Committee

Table 1. Process Heaters: Information Gathering Recommended Through The ICCR

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count	
		Plant	Plant Description	Combustor Description			
3019000 1	Chemical Manufacturing, Fuel Fired Equipment, Distillate Oil (No. 2): Distillate Heaters			ICCR	2869	10 year	20
		Huls America, Inc.	Entire source	Hot oil fce.			
		Neville Chemical Co.	Boiler/air stripper	Still htr., waste oil			
		Ozark Mahoning Co.	Mining or prep., fluorospar	Rotary kilns			
		Ranbarr Technology, Inc. (Ball Chemical Co.)	Natural gas-fired boiler	Hot oil htr., FO			
		Reichold Chemicals, Inc., Bridgeville	NG-fired reactor	Therminol fce.			
		Reilly Industries, Inc.	Synthetic chemicals	BD2714V			
		The Dallas Group of America		Boiler			
		The Valspar Corp.	Paints and allied products	Mobil-therm htr., 3000			
		Arco Chemical Co.; General Chemical Corp.; Monsanto Co.; Westlake Monomers, Inc.					
3019000 2	Chemical Manufacturing, Fuel Fired Equipment, Residual Oil: Process Heaters			ICCR	2869	10 year	21
		Reilly Industries, Inc.	Synthetic chemicals	DAB 732714; PP 702611; BXS 2706Q; AP 722804; BT 2728S; EP 2729Q; BM 2724W; FC 2607T; BS 2740Q; BX 2707 V			
		DuPont Edgemoor; IMC-Agrico Chemical Co., New Wales; Keeshan and Bost Chemical Co.					
3019000 3	Chemical Manufacturing, Fuel Fired Equipment, Natural Gas: Distillate Heaters			ICCR	2869	10 year	773
		ADM Corn Processing	Grain dryers-industrial organic chem.	Gas dryer for d			

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	Agrium US, Inc.	Crop production services	Dryer			
	Air Products Mfg. Corp.		Schultz hydrogen reformer			
	Albemarle Corp.	Industrial organic chemicals				
	Alliant TechSystems, Inc., Bacchus Works	Aircraft engines	HVAC htr.; Hot water htr.			
	Allied-Signal, Metropolis Works	Medicinals and botanicals	B-top hydrofluorinator; NG-fired calcine; NG-fired dryer; B-bottom hydrofluorinator; A-reductor; B-reductor			
	American Cyanamid, Co.	Nitrogenous fertilizers				
	Amoco Chemical Co.		Hot oil fce.			
	Arcadian Fertilizer, L.P.	Nitrogenous fertilizers	Gas fce.			
	ASARCO, Inc.	Primary lead smelter	Acid plant			
	Ashland Chemical Corp.	Industrial inorganic chemicals	Hot oil htr.			
	Autostyle Plastics, Inc., Kendrick Facility		Compression molding; Horizontal rim molding; Vertical rim molding			
	BASF, Corp., Wyandotte Site		Air htr.-spray dryer			
	Biolab, Inc.	Mfg. plant	Flash dryer			
	Borden Packaging and Industrial Products	Chemical Mfg.				
	Cabot Corp.	Mfg. carbon black				
	Calgon Carbon Corp.	Chemical products	Furnace, prime act, NG; Baker impreg. NG; Cooperite VFBD preheater; Kiln burner; Kiln preheater; SCCW manuf. NG; Pellet dryers, NG; Baker burners			
	Cametco, Inc.	Calcium fluoride process				
	Cargill, Inc.	Alkyd and polyester resins				

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
		Plant	Plant Description	Combustor Description		
		Columbian Chemical		Dryer stack		
		Condea Vista	Plastics materials and resins	Resin dryer burner		
		Coronet Industries		KBF4 plant w/DU		
		Cozinco, Inc.	Primary zinc	Spray dryer		
		Croda Apex Adhesives		NG-fired pro		
		Cytec Industries	AFI/UXO processes			
		Dow Brands-Personal Care	Hair care products	Bottle flammers		
		E.I. duPont de Nemours and Co.	Mfg. automobile finishes	Resin reactor; Primer mfg.		
		E.I. duPont	Chemicals	Sodium silicate fce.		
		Eagle Alloy, Inc.		Process heaters gas		
		Eastman Chemical Co.	Petrochemicals mfg.			
		E.I. duPont de Nemours and Co., In	Fluorocarbons, HCl			
		Farmland Hydro, L.P.		MAP, DAP fertilizer		
		Farmland Industries, Hastings	Nitrogeneous fertilizers	Gas ammonia htr.		
		Farmland Industries, Inc.		Start-up htr., NG		
		FMC-Trona	Soda ash production	NaCN process preheat		
		Ford Motor Co., Livonia Transmission Plant		Thermal deburring		
		Frigidare Co.	Mfg. plant	Cabinet foam system; Door foam system		
		Gallagher Corp.		Polyurethane molding oven		
		General Chemical Corp.		Sulfuric acid, 98 percent		
		General Electric	Plastics Materials and Resins	Hot oil fce.		
		Guardsman Products, Inc.		One wipe treatment		
		Hayes Wheels International, Inc.		Wet paint line; Powder paint line		
		Henkel Adhesives Corp.		Gas-fired hot oil boiler		

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	Henkel Corp.	Industrial organic chemicals	Hot oil system, g			
	Hercules Composite Materials	Graphite fiber production	Small boiler; HVAC htr.			
	Hoechst Celanese Chemical Group, Ltd.	Butyric/prionic unit; Organic chemicals mfg.				
	Hoechst Celanese Corp.		NG-fired boiler/tanks			
	Hoechst Celanese Engineering Resins	Organic chemicals and resins				
	Holley Automotive Division	Administrative engineering	Water htr.			
	Imperial Metal Products	Mfg. plant	Vapor degreaser			
	Kalama Chemical	Industrial organic chemicals	Heater			
	Lasco Bathware		Gel coat; Barrier coat; Lamination			
	Lomac, Inc.	Mfg. plant	Wand XLR htr.; Zimpro htr.			
	Lyondell Petrochemical Co.	High density polyethylene				
	McWhorter Technologies	Plastic materials and resins	NG-fired hot oil htr.			
	Metal Components, Inc.		Hot water htr.			
	Midland Chemical Corp.		Process heating			
	Nanya Plastics Corp.	PVC blending and film mfg.				
	Nestle Food Co.	Dry/condensed/dairy prod.	Vertical spray dryer			
	Neville Chemical Co.	Boiler/air stripper	Still process htr., NG; Packaging ctr. htr., NG			
	NGC Energy Resources	Gas plant	Glycol htr.; Regen gas htr.; Hot oil htr.; Stabilizer htr.			
	Oxychem, Inc.	Olefins production				
	Ozark Mahoning Co.	Mining or prep. fluorospar	Rotary kiln			
	Penninsula Copper Industries	Copper leaching plant	Rotary distillers			
	Phillips 66 Co.	Petrochemicals				

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	PPG Industries		Dowtherm htr.; Ethylene vaporizer; Exceltherm heat			
	PPG Industries, Inc.	Adrian C&R	Rubber mill; Hot oil boiler			
	Praxair, Inc.	Industrial inorganic chemicals	Regen htr.			
	Ranbar Technology, Inc. (Ball Chemical Co.)		NG-fired boiler			
	Reichold Chemicals, Inc., Bridgeville	NG-fired reactor	Therminol fce.; Dowtherm vaporizer			
	Reilly Industries, Inc.	Synthetic chemicals	Still htr.; Kettle htr.			
	Rexene Corp.	Petrochemical product mfg.				
	Rhone-Poulenc Basic Chemicals Co.	Industrial inorganic chemicals	NG			
	Riba Corp.		Hot oil htr.			
	Romeo Rim, Inc.		Rim molding presses; Oven			
	Shell Chemical Co.		Dehydrogenation			
	Silbond Corp.		Hot oil boiler			
	Sterling Group, Sewickly	Paints and allied products				
	The Dallas Group of America		Dryer; Boiler			
	Universal Oil Products Co., Process Div.	Chemical preparations, nec	Direct-fired oven			
	Unocal Urea Plant	Ammonia-urea plant	Power section; Ammonia plant; Urea plant			
	Upjohn Co., Portage Road Facility		NG fuel equipment			
	Varian X-ray Tube Productions	Electron tube mfg.	Water htr.; Heating			
	Vulcan Chemicals	Alkalies and chlorine				
	Wacker Silicones Corp.		Hot oil htr.			
	Westvaco Corp.	Extruded carbon operation				
	Witco Corp.		Kiln			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count	
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
		<i>Woodbridge Corp.</i>	<i>Mfg. plant</i>	<i>Oven line</i>			
		Akzo Nobel Chemicals, Inc.; Allied-Signal; ARCO Chemical Co.; Baker Performance Chemicals, Inc.; BASF Corp. Coatings and Color; Beaumont Methanol LTD Partnership; Catalyst Resources, Inc.; Chevron Chemical Co.; Dixie Chemical Co.; Dow Chemical, Luddington Plant; DuPont, Washington Works; DuPont, Edgemoor; EGP Fuels Co.; ELF Atochem North America, Inc.; Enterprise Products Co.; Exxon Chemical Co.; Fina Oil and Chemical Co.; Flint Ink Corp.; FMC Nitro; Formosa Plastics Corp.; Geon Co.; Georgia Gulf Corp.; Global Octanes Corp.; Haltermann, Ltd.; Hampshire Chemical Corp.; Huntsman Chemical Corp.; ICI Acrylics, Inc.; ICI Americas, Inc.; IMC Agrico Chemical Co.; ISK Biotech Corp.; ISP Technologies, Inc.; Jasper Co. Farm Bureau Coop Assn., Inc.; Johnson Controls; Kincaid Enterprises, Inc.; KMCO, Inc.; Lonza, Inc.; Lubrizol Corp.; Lubrizol Petroleum Chemicals Co.; Merichem Co.; Mobil Chemical Co.; Monsanto Co.; Mt. Clemens Coatings; Natural Gas Odorizing, Inc.; Occidental Chemical Corp.; Olin Chemical; Petrolite Corp.; Phillips Chemical Co.; Pilot Industries of TX, Inc.; Quantum Chemical Corp.; Rheox, Inc.; Rhom and Haas Texas, Inc.; Schenectady International, Inc.; Solvay Polymers, Inc.; Texas Petrochemicals Corp.; The Dow Chemical Co.; Union Carbide, South Charleston; Vintage Petroleum, Inc.;					
3019000 4	Chemical Manufacturing, Fuel Fired Equipment, Process Gas			ICCR	2869	10 year	71
		<i>Amoco Petroleum Products</i>	<i>Petroleum refining</i>				
		<i>Aristech Chemical Corp., Neal Plant</i>		<i>Nitrogen htr.</i>			
		<i>Borden Packaging and Industrial Prod.</i>	<i>Chemical mfg.</i>				
		<i>Cabot Corp., Ohio River Plant</i>	<i>Carbon black</i>				
		<i>Citgo Refining and Chemicals, Inc.</i>	<i>Petroleum refining</i>				
		<i>Columbian Chemical</i>		<i>Dryer stack</i>			
		<i>Eastman Chemical Co.</i>	<i>Petrochemicals mfg.</i>				
		<i>Rexene Corp.</i>	<i>Polyolefins mfg.</i>				
		<i>Shell Oil Co., NMC Ref.</i>		<i>Dryer regenerator</i>			
		<i>Vulcan Chemicals</i>	<i>Alkalies and chlorine</i>				
		Arco Chemical Co.; Chevron Chemical Co.; Goodyear Tire and Rubber Co.; Huntsman Corp.; Mobil Chemical Co.; Shell Oil Co.; The Dow Chemical Co.					

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count	
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
3029000 1	Food and Agriculture, Fuel Fired Equipment, Distillate Oil (No. 2)			ICCR *	2077	10 year	21
		<i>Agri Sales, Inc.</i>		<i>Town and country</i>			
		<i>Belvidere Farmer Exchange, Inc.</i>	<i>Grain mill products</i>				
		<i>Brooks Foods</i>		<i>Fuel use</i>			
		<i>Countrymark Cooperative, Inc.</i>		<i>Dryer</i>			
		<i>Darling International, Inc.</i>		<i>Cooker; Press; et</i>			
		<i>Perdue Farms, Inc.</i>	<i>Poultry processing</i>				
		<i>Purina Mills, Inc.</i>	<i>Feed mill</i>				
		<i>Sierra Conservation Center</i>	<i>State prison</i>	<i>Cooking stove</i>			
		<i>Swift Eckrich, Inc.</i>	<i>Meat processing plant and f</i>	<i>NG boiler</i>			
		<i>Sylvest Farms, Inc.</i>	<i>Grain mill products</i>	<i>Boiler</i>			
		<i>Townsend's, Inc., Agri-Products Group</i>	<i>Prepared feeds</i>	<i>Grain dryers</i>			
		<i>Tropicana Products, Inc.</i>		<i>Boiler</i>			
		<i>Bayboro Dehydrating Co., Inc.; Cargill, Inc.;</i>					
3029000 2	Food and Agriculture, Fuel Fired Equipment, Residual Oil			ICCR *	2077	10 year	29
		<i>Alcoma Packing Co.</i>		<i>Citrus peel dryer; Boiler</i>			
		<i>General Mills, Inc.</i>	<i>Flour and other grain mill</i>	<i>Puffer</i>			
		<i>Indian River Foods</i>		<i>Peel dryer</i>			
		<i>Michigan Sugar Co.</i>		<i>Pulp dryer</i>			
		<i>Rainbow Baking, Oklahoma City</i>	<i>Baking company</i>	<i>NG-combustion bread oven; NG-combustion bun oven; Boiler</i>			
		<i>Southern Gardens Citrus Processing Corp.</i>		<i>Cirtus feed mill with was</i>			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
		<i>Tater Meal, Inc./McCain Foods</i>	<i>Dehy fruits vegetable soups</i>			
		<i>Tropicana Products, Inc.</i>		<i>Peel dryer and waste heat; Steam generator</i>		
		<i>Hercules</i>				
3029000 3	Food and Agriculture, Fuel Fired Equipment, Natural Gas		ICCR *	2077	10 year	506
3029000 5	Food and Agriculture, Fuel Fired Equipment, Process Heaters: LPG		ICCR *	2077	10 year	4
		<i>Countrymark Cooperative, Inc.</i>		<i>Grain dryer</i>		
		<i>Doane Product Co.</i>	<i>Pet foods</i>			
		<i>Jacks Bean Co.</i>	<i>Bean/popcorn cleaning</i>	<i>Grain dryer</i>		
3039000 1	Primary Metal Production, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters		ICCR *	3333	10 year	20
		<i>Bethlehem Steel Corp.</i>	<i>Steel products</i>	<i>Normalizing fce.; Annealing fce.; Space heating</i>		
		<i>Copper Range Co.</i>	<i>Copper mine mill refinery</i>	<i>Converter; Reverb fce.; Anode fce.</i>		
		<i>Cyrus Copperstone Gold Corp.</i>		<i>Desorption thermal htr.</i>		
		<i>Glenbrook Nickel Co.</i>	<i>Primary smelting</i>	<i>Plant site diesel use</i>		
		<i>Tilden Mining Co.</i>		<i>Ore dryer</i>		
		<i>Aluminum Extrusion Corp; GE Aircraft Engines; MDI Caribe, Ltd.</i>				

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count	
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
3039000 2	Primary Metal Production, Fuel Fired Equipment, Residual Oil: Process Heaters			ICCR *	3333	10 year	14
		<i>Bethlehem Steel Corp.</i>	<i>Steel products</i>	<i>Hot strip mill fce.; Blast fce. c stove; Power station boiler</i>			
		<i>EI du Pont de Nemours and Co.</i>		<i>Zircon rotary kiln; Ilmenite dryer; Zircore dryer</i>			
		<i>Glenbrook Nickel Co.</i>	<i>Primary smelting</i>	<i>Plant site resid oil</i>			
3039000 3	Primary Metal Production, Fuel Fired Equipment, Natural Gas: Process Heaters			ICCR *	3333	10 year	365
3039000 4	Primary Metal Production, Fuel Fired Equipment, Process Gas: Process Heaters			ICCR *	3333	10 year	63
		<i>Bethlehem Steel Corp.</i>	<i>Steel products</i>	<i>Power station boiler; Plate station boiler; Plate continuous fce.; Blast fce. flare; Hot strip mill fce.; Plate batch fce.; Blast fce. c stove; Coke oven underfire battery; Soaking pits</i>			
		<i>Case Corp., Racine Tractor Plant</i>	<i>Farm machniery and equipment</i>	<i>Heat treat</i>			
		<i>Geneva Steel</i>	<i>Integrated steel mill</i>	<i>Coke battery</i>			
		<i>National Steel Corp., Great Lakes Div.</i>		<i>Annealing bldg.; Blast fce., Slab heating fce.</i>			
		<i>Shenango Iron and Coke Works</i>	<i>Coke ovens</i>	<i>Blast fce. preheat</i>			
		<i>US Steel, Gary Works</i>	<i>Iron and steel fabrication and prod.</i>	<i>BOP ladle preheaters; BOP ladle dryers</i>			
		<i>Weirton Steel Corp.</i>	<i>Blast furnaces and steel</i>				
		<i>Rouge Steel Co.</i>					
3049000 1	Secondary Metal Production, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters			ICCR *	3300	10 year	11
		<i>Chester Tire Mold</i>	<i>Aluminum tire mold castings</i>	<i>Reverb fce.</i>			
		<i>Fagan Iron and Metal</i>	<i>Metal salvage</i>	<i>Aluminum melter</i>			
		<i>Ford Michigan Proving Grounds</i>		<i>Boiler</i>			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
		<i>Mobile Pulley and Machine Works</i>	<i>Dredging equipment mfg.</i>	<i>Fuel oil</i>		
		<i>Portland Iron and Metal, Inc.</i>		<i>Aluminum sweat fce.</i>		
		<i>Reynolds Metals Co. Alloys Plant</i>	<i>Secondary nonferrous metals</i>	<i>Reheat fce.</i>		
3049000 2	Secondary Metal Production, Fuel Fired Equipment, Residual Oil: Process Heaters		ICCR *	3300	10 year	1
		<i>Caterpillar, Inc.</i>	<i>Gray iron foundries</i>	<i>Drying robots</i>		
3049000 3	Secondary Metal Production, Fuel Fired Equipment, Natural Gas		ICCR *	3300	10 year	610
3049000 4	Secondary Metal Production, Fuel Fired Equipment, Process Gas: Process Heaters		ICCR *	3300	10 year	34
		<i>Dutton Lainson</i>	<i>Transportation equip.</i>	<i>Brazer</i>		
		<i>General American Transportation Corp.</i>	<i>Rail car</i>	<i>Stress relief fce.</i>		
		<i>General Motors Corp.; Delco Chasis Div., Livonia</i>		<i>Heat treat fces.</i>		
		<i>Warren Wastewater Treatment Plant</i>		<i>Incinerator</i>		
		<i>Bethlehem Steel Corp.; GMC Central Foundry Div.; GMC Delco Products Div.;</i>				
3059000 1	Mineral Products, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters		ICCR *	4463	10 year	78
		<i>Advanced Paving Co., Inc.</i>		<i>Asphalt drum-dryer plant</i>		
		<i>Bird, Inc.</i>	<i>Asphalt felts and coating</i>			
		<i>Bissen Blacktop, Inc.</i>	<i>Asphalt plant</i>	<i>Cedar Rapids plant</i>		
		<i>Blythe Industries, Inc., Monroe Plant</i>	<i>Paving mixtures and block</i>			
		<i>Brooks Construction Co., Inc.</i>		<i>Asphalt mix batch plant</i>		
		<i>Brush-Wellman</i>	<i>Beryllium source</i>	<i>Process steam boiler</i>		
		<i>Celotex Corp.</i>	<i>Asphalt felts and coating</i>			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	<i>Certainfeed Corp.</i>	<i>Asphalt shingle mfg.</i>				
	<i>Consumers Concrete Corp.</i>		<i>Sand htr.</i>			
	<i>D.B. Hodgins Paving Co.</i>		<i>Process htr.</i>			
	<i>Daanen and Janssen, Inc.</i>		<i>Crushers; Screening</i>			
	<i>Dragon Products Co.</i>	<i>Crushed and broken stone</i>				
	<i>ECC International, Calcium Products</i>		<i>Raymond mill</i>			
	<i>E.R. Jahna Industries, Inc.</i>		<i>Limerock dryer</i>			
	<i>G.A. and F.C. Wagman, Inc.</i>		<i>Portable concrete plant</i>			
	<i>G.E. Goding and Sons</i>	<i>Ready-mixed concrete</i>				
	<i>Hickson-Dan Chemicals, Inc.</i>		<i>Oil/NG boiler</i>			
	<i>Howard Quarries</i>	<i>Crushed and broken limestone</i>				
	<i>MC-Agrico Co., Lonesome Mine</i>		<i>Fuel preheater</i>			
	<i>Industrial Minerals</i>	<i>Ground calcium borate</i>	<i>Mill hot air fce.; Dryer; Mill fce.</i>			
	<i>ISP Minerals, Inc.</i>	<i>Minerals, ground/treated</i>	<i>Aerators; Kiln; Preheater</i>			
	<i>J.H. Rudolph and Co., Inc.</i>	<i>Asphalt and concrete</i>	<i>Asphalt concrete plant</i>			
	<i>J.T. Russell and Sons, Inc.</i>	<i>Paving mixtures and block</i>				
	<i>Kyanite Mining Corp.</i>	<i>Kyanite railcar loadout</i>	<i>Mullite kilns</i>			
	<i>Michigan Colprovia Co.</i>	<i>Asphalt paving plant</i>	<i>Ashpalt htr.</i>			
	<i>Morton International, Inc.</i>	<i>Chemical preparations, ne</i>				
	<i>Oil-Dry Products Co.</i>	<i>Minerals, ground or treat</i>				
	<i>Payne and Dolan, Vienna Quarry</i>		<i>Asphalt plant</i>			
	<i>PCS Phosphate Co., Inc.</i>	<i>Crushed and broken limestone</i>	<i>Drilling, limestone</i>			
	<i>Piedmont Minerals Co., Inc.</i>	<i>Mineral mining and milling</i>				
	<i>Piney Point Phosphates, Inc.</i>		<i>DAP plant mfg. and storage</i>			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
		<i>Sargent Sand Co.</i>		<i>Sand dryer</i>		
		<i>Spaulding Composites Co.</i>	<i>Misc. plastics production</i>	<i>Rx water burn-off</i>		
		<i>Vans Material</i>		<i>Aggregate htr.; Water htr.</i>		
		<i>Walsh and Kelly, Inc.</i>	<i>Paving mixtures and block; Asphalt paving compounds; Drum mix asphalt plant</i>	<i>Asphalt batch plant; Process htr.; Asphalt drum plant; Asphalt plant and htr.</i>		
		<i>Barrus Construction Co., Fountain Plant; Dayton Sand and Gravel Co., Inc.; Ferraiolo Construction Co., Inc.; Lane Construction Corp.; Medusa Cement Co.; Stiles and Hart Brick; Superior Paving, Buffalo Shoals Road</i>				
3059000 2	Mineral Products, Fuel Fired Equipment, Residual Oil: Process Heaters		ICCR *	4463	10 year	15
		<i>Celotex Corp.</i>		<i>Calcining kettle burner</i>		
		<i>IMC-Agrico Co.</i>		<i>Phosphate rock dryer; Fluid bed</i>		
		<i>Kyanite Mining Corp.</i>	<i>Kyanite railcar loadout</i>	<i>Millite kiln</i>		
		<i>Occidental Chemical Corp.</i>	<i>Industrial inorganic chem.</i>	<i>Open hearth glass fce.</i>		
		<i>Oil-Dry Products Co.</i>	<i>Minerals, ground or treat</i>			
		<i>Payne and Dolan, Vienna Quarry</i>		<i>Asphalt plant</i>		
		<i>Porter Wyett Co.</i>	<i>Asphalt plant, rock crush</i>			
		<i>Rieth Riley Construction Co., Inc.</i>		<i>Burner</i>		
		<i>White Construction Co.</i>		<i>Asphalt batch plant</i>		
		<i>Lane Construction Corp.</i>				
3059000 3	Mineral Products, Fuel Fired Equipment, Natural Gas: Process Heaters		ICCR *	4463	10 year	278
3060010 1	Petroleum Industry, Process Heaters, Oil-fired		ICCR	2911	10 year	9
3060010 2	Petroleum Industry, Process Heaters, Gas-fired		ICCR	2911	10 year	56

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count	
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
30600103	Petroleum Industry, Process Heaters, Oil-fired			ICCR	2911	10 year	470
30600104	Petroleum Industry, Process Heaters, Gas-fired			ICCR	2911	10 year	3198
30600105	Petroleum Industry, Process Heaters, Natural Gas-fired			ICCR	2911	10 year	483
30600106	Petroleum Industry, Process Heaters, Process Gas-fired			ICCR	2911	10 year	798
30600107	Petroleum Industry, Process Heaters, LPG-fired			ICCR	2911	10 year	12
30600108	Petroleum Industry, Process Heaters, Landfill Gas-fired			ICCR	2911	10 year	4
30600111	Petroleum Industry, Process Heaters, Oil-fired (No. 6 Oil) > 100 Million Btu Capacity			ICCR	2911	10 year	37
30600199	Petroleum Industry, Process Heaters, Other Not Classified			ICCR	2911	10 year	18
30790001	Pulp and Paper and Wood Products, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters			ICCR *	2430	10 year	12
		<i>Forest Energy Corp.</i>		<i>Dryer</i>			
		<i>James River Corp., Groveton</i>	<i>Paper mills exc building</i>	<i>PO-BP</i>			
		<i>Kerr-McGee Chemical Corp.</i>		<i>Primary boiler</i>			
		<i>Lincoln Pulp and Paper Co., Inc.</i>	<i>Pulp mills</i>				
		<i>Louisiana Pacific Corp.</i>		<i>Wafer dryer; Thermal oil htrs.</i>			
		<i>S.D. Warren Co., Scott Paper Co.</i>	<i>Paper and paper products</i>				
		<i>Virginia Mfg. Co., Inc.</i>	<i>Add to coating booths</i>				
		<i>Indian Head Plywood</i>					

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
3079000 2	Pulp and Paper and Wood Products, Fuel Fired Equipment, Residual Oil: Process Heaters		ICCR *	2430	10 year	9
	<i>Container Corp. of America</i>		<i>RB-S or C rec/boilers; Recy boiler</i>			
	<i>Georgia Pacific Corp., Conway</i>	<i>Hardboard plant</i>				
	<i>Thompson McCully Co.</i>		<i>Asphalt drum mixer</i>			
	<i>Weyerhaeuser Paper Co., Plymouth</i>		<i>Hog fuel boiler</i>			
	<i>Leaf River Forest Products; Mead Paper Co.; S.D. Warren Co.</i>					
3079000 3	Pulp and Paper and Wood Products, Fuel Fired Equipment, Natural Gas: Process Heaters		ICCR *	2430	10 year	169
	<i>Abtco, Inc.</i>	<i>Mfg. plant</i>	<i>Hardboard bake oven; Sludge dryer; Press; Roll coater; Predryer; Coe dryer</i>			
	<i>Afco Industries, Inc.</i>	<i>Tile board plant</i>	<i>Bake oven</i>			
	<i>American Fibril Inc.</i>		<i>Konus oil htr.</i>			
	<i>American Heating Co.</i>	<i>Mfg. of furniture and seat</i>	<i>Paint hook burn unit</i>			
	<i>Appleton Mills</i>		<i>NG-fired dryer; NG-fired singe burner; NG-fired air make</i>			
	<i>Appleton Papers Inc., Locks Mill</i>	<i>Paper processing</i>	<i>Papermaking processes; Misc. gas-fired htrs.</i>			
	<i>Armstrong World Industries, Inc.</i>	<i>Building paper mfg., blr., rck cr</i>	<i>NG combustion</i>			
	<i>Baldwin Filters</i>	<i>Mfg.</i>	<i>Plasma cutting of wire; NG curing oven</i>			
	<i>Bessemer Plywood Corp.</i>	<i>Plywood mfg.</i>	<i>Veneer dryers</i>			
	<i>Boise Cascade Corp.</i>	<i>Kraft paper mill; Particleboard mfg.; Sawmill</i>	<i>Paper mach., NG; NG furnish dryers; Direct steam generator; Power boiler</i>			
	<i>Brandom Mfg. Co., Inc.</i>	<i>Cabinet mfg.</i>				
	<i>Bright Wood Corp.</i>	<i>Millwork</i>	<i>Space htrs.</i>			
	<i>Broyhill Furniture Industries</i>		<i>Process combustion</i>			
	<i>Cansorb Industries Corp.</i>	<i>Wood products, nec</i>				

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
		Plant	Plant Description	Combustor Description		
		Capitol Excavating and Paving		Asphalt drum mixer		
		Caravelle Wood Products, Inc.	Wood kitchen cabinets	Coating line ovens		
		Celotex Corp.	Accoustical tile mfg.	Dryer		
		Champion International Corp.	Quinneseec pulp and paper mill	Lime kiln; Recovery boiler		
		Consol Papers, Inc., Stevens Point Div.		Paper machine; Off machine blade coater		
		Converters Paperboard Co.	Paperboard mill	Boiler		
		Crown Vantage	Paper mfg.	Wart.; Yankee hood dry end; Size press; Yankee hood wet end; Yankee hood; Parchment		
		Davey Co., Aurora Paperboard Div.	Die-cut paper and board	Gas-fired paper dryers		
		Dubois Wood Products, Inc.		Oven		
		Fenestra Corp., Oshkosh Wood Door Div.	Wood doors	Space htr.s; "Johnson unit" floor		
		Fleetguard, Inc.	Motor vehicle parts and accessories	Paper cur system		
		Fletcher Paper Co.		IR dryer		
		Fort Howard Paper Co.	Paper mill (recycled)			
		GP: Catawba	Hardboard mfg.			
		Herman Miller, Inc.		Lam line htr.		
		Hoffmaster, Div. of Fonda Group, Inc.		Encapsulated coatings on		
		International Paper Co.	Paper mills exc building			
		James River II, Inc.	Kraft paper mill	NG paper machine and winder; NG recovery fce.; NG convert plant; NG pulp dryer; Propane pulp dryer		
		Kerr-McGee Chemical Corp.		Primary boiler		
		Kimberly-Clark, Diaper Mfg.		Heaters		

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	Kimberly-Clark Corp., Munising Paper Mill		Coater-process htr.; Infrared burner; Coater, burner			
	Kirsch Div.		JWI dryer			
	Lignetics of Idaho	Wood pelletizing	Drum dryer			
	Louisiana Pacific Corp.		T/O backup htr.; Wafer dryers			
	Manthei Inc. Veneer Mill		Heating and dry oven; Press veneer dryer			
	Marion Plywood Corp.	Hardwood veneer and plywood				
	Mead Paper Co., Escanaba Mill		Coater drying			
	Menasha Corp.	Paperboard div. mfg. plant	Coal car htr.			
	Michigan Seat Co.		Water evaporator			
	Niagara of Wisconsin Paper Corp.	Groundwood pulp/paper mill	NG-fired IR			
	Pope and Talbot Pulp, Inc.	Kraft pulp mill				
	Schrock Cabinet Co.	Wood household furniture				
	Schuller International	Building paper and board mills				
	Sweetheart Cup Corp.		Plastic printing gas heat			
	The Chinot Co.	Molded fiber products	Pulp dryer			
	Thilmany Pulp and Paper Co.	Paper mills exc building	Paper machine coat			
	Thompson McCully Co.		Asphalt drum mixer			
	Travis Lumber Co., Inc.	Sawmill	Drying kiln			
	Waldorf Corp.	Paperboard mfg.				
	Weyerhaeuser Co.	Structurewood plt.; Lumber and woodworking; Plywood, particleboard, hardboard mfg.	Thermal oil htrs.; Mineral core gas dryer; Core dryer			
	Willamette Industries, Inc.	Particleboard mfg.	NG UV paintline			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count	
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
		<i>Abitibi-Price Corp.; Dallas Woodcraft Inc.; GMC AC Rochester Flint Eas; S.D. Warren Co.; Texwood Industries, Inc.; Triangle Pacific Corp.; Westvaco</i>					
3089000 1	Rubber and Miscellaneous Plastics Products, Process Heaters, Distillate Oil (No. 2)			ICCR	3079	10 year	1
3089000 3	Rubber and Miscellaneous Plastics Products, Process Heaters, Natural Gas			ICCR	3079	10 year	169
3089000 4	Rubber and Miscellaneous Plastics Products, Process Heaters, Liquefied Petroleum Gas (LPG)			ICCR	3079	10 year	1
3099000 1	Fabricated Metal Products, Fuel Fired Equipment, Distillate Oil (No. 2): Process Heaters			ICCR *	3431	10 year	10
		<i>Cerco Corp.</i>		<i>Heating fce.</i>			
		<i>Cooperheat</i>	<i>Heating for ovens</i>	<i>Propane fce. for ovens</i>			
		<i>Elm Die Cutting Corp.</i>		<i>Fce.</i>			
		<i>Jasper Laminates</i>		<i>Glue booths</i>			
		<i>Kodak-Elmgrove</i>	<i>Photographic equipment and sy</i>				
		<i>Saturn Corp.</i>	<i>Experimental mfg.</i>	<i>Despatch convention oven</i>			
		<i>Snap-On Tools Corp.</i>	<i>Hand and edge tools, nec</i>	<i>Forge fces.</i>			
		<i>Martin-Marietta, Aero and Naval Systems; Quaker Window Products Co.</i>					
3099000 2	Fabricated Metal Products, Fuel Fired Equipment, Residual Oil: Process Heaters			ICCR *	3431	10 year	5
		<i>GAF Building Materials Corp.</i>					
3099000 3	Fabricated Metal Products, Fuel Fired Equipment, Natural Gas: Process Heaters			ICCR *	3431	10 year	483
		<i>ABC Rail Corp.</i>	<i>Iron and steel forgings</i>	<i>Walking be; Tempering</i>			
		<i>Ace Anodizing and Impregnating, Inc.</i>		<i>Preheat oven</i>			
		<i>Acme Barrel Co.</i>	<i>Business services, nec</i>	<i>Gas-fired drum preheater</i>			

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	Admiral Div. of the Maytag Co.	Household refridgerators and freezers	Parts washer dry-off oven; Parts washer water htr.; Paint hook cleaner bath			
	Aero Motive Mfg. Co.	Mfg.	Parts washing			
	Alumax Extrusions, Inc.	Metal doors, sash, and trim	Age ovens			
	American Axle and Mfg., Inc., Detroit Forge Mfg. Plant		Gas forge fces.			
	American Flange and Manfuacturing Co.	Fabricated metal products	Uni-grip oven; Fuel combustion emissions			
	American Meter Co.	Aluminum foundries	Sintering oven			
	AP Parts Co., Northern Tube Div. Mfg. Plant		Samsco evaporator			
	Apex Rack and Coating Co.	Metal fabricating	Plastisol oven			
	Appleton Electric	Spray paint electrical boxes	Paint line; Wash			
	Argyle Industries		Drying oven			
	Arnold Engineering	Fabricated rubber products	Continuous cure oven			
	Arrow Gear Co.	Speed changes, drive, and gear	Washer heat treat; Draw fce.			
	Barber-Colman Co.	Textile machinery	Continuous bake oven; Walk-in oven			
	Behlen Mfg. Co.	Metal buildings				
	Belstra Milling Co., Inc.	Livestock feed	Gas dryer			
	Benteler Industries		Parts washer; Boiler			
	Borroughs Corp.	Mfg. plant	Burn-off oven; Parts washer; Paint strip tanks			
	Braun Engineering Co.		Fce. and quench tank; Bell fces.;			
	Briggs & Stratton Auto Lock	Motor vehicle parts & accessories	Thermal deburring			
	Buckbee-Mears	Fabricated metal products				
	Burgess Norton Mfg.	Motor vehicle parts and accessories	Despatch straight oven			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	Cadillac Plating Corp.		Heating and dry oven			
	Castle Metal Finishing Corp.		Hydrogen embrittlement			
	Chemical Processing, Inc.		Spray washer htr.; Phosphate line burner; Zinc plating line htr.			
	Chem-Plate Industries, Inc.		Continuous hydrogen relie; Heat treating fce.			
	Chicago Steel and Pickling	Gray iron foundries	Strip dryer			
	Chicago Finished Metals, Inc.	Metal coating and allied se	IR drying oven; Prime oven; Finishing oven			
	Chicago Powdered Co.	Industrial machinery, nec	Electric fce. co sinter			
	Chrysler Corp.; Trenton Engine Automive		Molly coat oven			
	Dehler Mfg. Co.		Dry-off oven			
	Delco Electronics Corp.		Annealing fce. shells; HD oil filter oven; Air filter cure oven; Gas filter cure oven; MS solder kiln; Insulator kilns; FLS solder ovens; Annealing fces.; Heat treat fces.; Panel element filter cure; Ink dryers; Spray dryer; Grinder solder oven; Plastisol cure oven			
	Delta Tube and Fabricating Corp.	Metal fabrication and painting	Parts washer			
	Diesel Technology Co.		Thermal deburr			
	Douglas and Lomason	Automobile seat frame mfg.	NG washer htr.			
	Dow Chemical USA		Heat treat fce.			
	Draw Tite, Inc.		Parts washer			
	Dutton Lainson	Transportation eqpt.	Zinc die cast machine; Degreaser; Paint line curing oven			
	Eaton Corp., Controls Div.		Thermal deburring			
	Electro Voice, Inc.		E-static cure oven; Hand paint cure oven			

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	Elkay Mfg.	Fabricated structural met	Washer htr.			
	Empire Comfort Systems		Water htr.			
	Estwing Mfg. Co., Inc.	Hand and edge tools, nec	Draw ovens			
	EW Bliss Co.		Heat treating system			
	E/M Corp.		Power washer burner			
	Federal Mogul Corp.		Parts dryer; Washe- dryer			
	Fenton Heading Div.		Parts washer			
	FIC America Corp.		Carbo-nitriding pacemaker			
	Fitzgerald Finishing Co.	Painting plant	Ammonia stop-off; Draw fce.			
	Ford Motor Co., Livonia Transmission Plant		Fces. with salt or oil quench			
	Foster Wheeler Corp.	Fabricated plates/boilers				
	FPM Continuous Processing		Heat treating lines; Endothermic units			
	Frankel Metal Co.		Metal chip dryer			
	General Electric Co.	Electric services; Transformers and motors; Household cooking equipment	Annealing ovens; Bake ovens; Holding oven			
	General Motors Corp.		Gas fce.; MVAN leaf line; Main color booth; Heat treat fce.; Htr.; Solder operations; Welders; Paint system; Modular paint oven; Uniprime paint system; Hardening fce.; Draw fce.; In-line repair; Sealers and adhesives			
	Gerrett Products	Propane cylinders	Brazing ovens			
	Gerlin, Inc.		Heat treat fces.			
	Halstead Industries, Inc.	Copper rolling/drawing	NG preheat conveyer			
	Hart and Cooley, Inc., Holland Plant		Hardening oven; Paint strip			
	Haskell of Pittsburgh, Inc.	Metal surface coating				

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	Hastings Mfg. Co.		Bluing tank; Chrome arbor htr.			
	Hayes Wheels International	Aluminum forgings	Melting fces.			
	Helgesen Industries, Inc.	Misc. metal parts coating	Dry filter paint booth			
	Heresite Protective Coatings, Inc.	Paints/protective coating	Spray booth and dip tank			
	Highlands Gathering & Processing Co	Natural gas compression &				
	Hoskins Mfg. Co.		Molten salt descale			
	Howard Plating, Madison Heights		Bake oven			
	H.T. Gaston Corp.		Oven			
	ICON Metal Craft, Inc.		Drying oven; Hardening oven			
	IIT Research Institute	Metal heat treating	Parts washers; Salt quench tanks			
	Illinois Toolworks, Shakeproof Div.	Special dies, tools, jigs	Indirect-fired fces.			
	Industrial Coating, Inc.		Washer			
	Ingersoll Cutting Tool Co.		Coating fce.			
	IVA, Michigan Div.		Space/process htrs.			
	J.D. Plating Works, Inc.		Gas-fired fce.			
	J and M Plating Co.	Metal finishing for wire	Lacquer dip-bake; Sludge dryer			
	Kaydon Bearing Co.		Heat treating			
	Klein Tool Co.		Gas heated hardening fce.			
	Knape Industries, Inc.		Process steam boiler			
	Knape and Vogt Mfg. Co.	Home office	Hot water htr.; Stage burners			
	Laidlaw Corp.	Steel wire and related products	Handle cure and bake oven			
	Lakewood Engineering and Mfg. Co.	Blowers and fans	Washer dryer			
	Lanzen Fab North		Paint booth exhaust			
	LCN Closers, Inc., Div. Schlage Lock Co.	Hardware, nec	Water washer htr.			

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
		Plant	Plant Description	Combustor Description		
		Le Tourneau, Inc.	Manufacture of heavy material			
		Lewis Spring and Mfg. Co.	Metal stampings, spring, and wire	Stress relieving ovens		
		Lindsay Mfg. Co.	Farm and garden mach			
		Lionel LLC		NG htrs.		
		Lockheed Martin Control Systems	Motors and generators	Annealing ovens		
		Magline, Inc., Standish Plant		Magnesium pickling; Acid pickling; Alkaline cleaning; Magnesium drawing oven		
		Marinette Marine Corp.	Shipbuilding facility	Building heating; Paint booth; Blast bay		
		Marion Body Works	Truck bodies	Paint booth		
		Mascotech Forming Technologies		Coating line boiler; Degreaser		
		Master Quality Finishing, Inc.	Coatings, solvents, cleaners			
		Maysteel Corp., Menomonee Falls Div.		Part preparation and baking		
		Means Industries		Heat set fces.		
		Meridian, Inc.		Spray line wash line; Strip tank; Dry-off oven		
		Michner Plating Co.		Sludge dryer; Boilers		
		Micro Switch		Oven/washer		
		Midwest Pipe Coating		NG process htrs.		
		Modine Mfg. Co., McHenry Plant	Refridgeration and heating equipment	Powder paint curing oven		
		Monarch Ware, Inc.		Paint line		
		Monroe Auto Equipment, Tenneco Automotive	Motor vehicle parts and accessories	NG burner; NG hardening oven; NG dry-off oven; NG curing oven		
		National Castings	Steel foundries, nec	Tip-up heat treating fce.		
		National Mfg. Co.		Steam-heated dryers		
		Nibco, Inc.	Valves and pipe fittings	Heat treat		

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	<i>North American Spring and Stam</i>		<i>Ovens</i>			
	<i>Northrup-Grumman Corp.</i>	<i>Electronic components,nec</i>	<i>Ovens</i>			
	<i>Olin Corp., Brass Div.</i>	<i>Small arms ammunition</i>	<i>Anneal</i>			
	<i>Outboard Marine Corp.</i>	<i>Internal combustion engine</i>	<i>Heated die cleaning tank</i>			
	<i>Page Two, Inc.</i>	<i>Steel wire and related products</i>	<i>Annealing fce.</i>			
	<i>Patz Sales, Inc.</i>	<i>Farm equipment mfg.</i>	<i>Air make-up and heating</i>			
	<i>Penberthy, Inc.</i>	<i>Food products machinery</i>	<i>Heat treat and draw fce.</i>			
	<i>Pioneer Metal Finishing</i>		<i>Low-heat gas process</i>			
	<i>Polar Ware Co.</i>	<i>Blast furnaces and steel</i>	<i>Natural gas-firetube</i>			
	<i>Powder Coat Technology</i>		<i>Cure ovens; Dry-off ovens; Washers; Burn-off oven</i>			
	<i>Precision Universal Joint</i>		<i>Standby gas generator; Heat treat; Parts washer</i>			
	<i>Rapistan Demag Corp.</i>	<i>Mfg. plant, mat handling</i>	<i>Parts washer</i>			
	<i>Reed Chatwood, Inc.</i>	<i>Textile machinery</i>	<i>NG-fired cle</i>			
	<i>Reliance Finishing Co.</i>		<i>Surface coating lines</i>			
	<i>Riverdale Plating and Heat Treating Co.</i>		<i>Heat treating oven</i>			
	<i>Rockford Products Corp.</i>	<i>Bolts, nuts, rivets, and washers</i>	<i>Hardening fce.; Surface combustion draw fce.</i>			
	<i>Sheffield Steel</i>	<i>Elec arc steel post paint</i>				
	<i>Shell Ca Production</i>	<i>Crude petroleum and natural</i>				
	<i>South Holland Metal Finishing</i>		<i>Embrittlement oven</i>			
	<i>Spartan Aluminum Products, Inc.</i>	<i>Aluminum foundries</i>	<i>Gas-fired parts dryer</i>			
	<i>Speed Queen Co.-Ripon</i>	<i>General mfg.</i>	<i>Porc dryer & porc fce.</i>			
	<i>Steel Structures, Inc.</i>		<i>Custom coating line</i>			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	<i>Superior Truck Parts, Inc.</i>		<i>Brule' C.E.&E., Inc. T</i>			
	<i>Teledyne Continental Motor</i>	<i>General products</i>	<i>Power washers</i>			
	<i>Thompson Saginaw Ball Screw</i>		<i>Samsco evaporator; Process boiler; Rx generator; All-case washer; HOTO black</i>			
	<i>Trinity Industries, Inc.</i>	<i>Tank car mfg.</i>	<i>Stress relief oven; Catalytic drying oven</i>			
	<i>Tubelite, Inc.</i>		<i>Fce.</i>			
	<i>Union Tank Car Co.</i>	<i>Railroad tank cars</i>	<i>Stress fce.; Normalizing fce.</i>			
	<i>Unistrut Corp.</i>		<i>EE prep section</i>			
	<i>Universal Coating, Inc., Mt. Morris</i>		<i>Zinc phosphate</i>			
	<i>Vickers, Inc.</i>	<i>Valves g fittings</i>	<i>Fce.; Pac gen</i>			
	<i>Voltek Div. Sekisui America</i>		<i>Foaming oven</i>			
	<i>Vulcraft</i>	<i>Fabricated structural met</i>	<i>Annealing oven</i>			
	<i>Weldbend Corp.</i>		<i>Heat treating fce.</i>			
	<i>Wells Mfg. Co., Woodstock Plant</i>	<i>Nonferrous foundries, nec</i>	<i>Heat treat fce.</i>			
	<i>Western Forge Corp.</i>	<i>Hand and edge tools</i>	<i>Gas draw fce.</i>			
	<i>Williams White and Co.</i>	<i>Machine tools, metal types</i>	<i>Stress relief fce.</i>			
	<i>Wire Sales Co.</i>	<i>Steel wire and related products</i>	<i>Molten lead tank and fce.; Wire preheating fce.</i>			
	<i>A.G. Simpson; Alco Controls; Amerastar, Inc.; Bendix Automotive Systems; Borroughs Mfg. Co.; Bristol Mfg. Corp.; Cardone Ind.; Cessna Aircraft Div.; Chamberlain Mfg.; Crown Cork & Seal Co., Inc.; Dundee Wire and Mfg.; Gordon D. Garratt Co; Gees, Inc.; GMC B.O.C.; GMC Cadillac Div.; GMC Truck and Bus Group; Hudson Products Corp.; Inca Mfg. Corp.; Lake City Army Ammunition Plant; Linkbelt Construction; Lockheed Fort Worth Co.; Norwell Mfg. Co.; Peabody Techtank, Inc.; Rayethon Aircraft Co.; Siegel-Robert Plating, Inc.; TG (USA) Corp.; Troy Coatings Div.; Vought Aircraft Co.; Walker Mfg. Co.</i>					
3100040 1	Oil and Gas Production, Process Heaters, Distillate Oil (No. 2)		ICCR	1311	10 year	8
3100040 2	Oil and Gas Production, Process Heaters, Residual Oil		ICCR	1311	10 year	5

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
3100040 3	Oil and Gas Production, Process Heaters, Crude Oil		ICCR	1311	10 year	64
3100040 4	Oil and Gas Production, Process Heaters, Natural Gas		ICCR	1311	10 year	1774
3100040 5	Oil and Gas Production, Process Heaters, Process Gas		ICCR	1311	10 year	48
3100040 6	Oil and Gas Production, Process Heaters, Propane/Butane		ICCR	1311	10 year	4
3139000 1	Electrical Equipment, Process Heaters, Distillate Oil (No. 2)		ICCR *	7694	10 year	2
	<i>Motorola, Inc.</i>	<i>Communications equipment</i>	<i>CIO emergency generators</i>			

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
31390003	Electrical Equipment, Process Heaters, Natural Gas		ICCR *	7694	10 year	38
	CTS Corp., Microelectronics	Hybrid microcircuits	High and low pressure boilers			
	Dow Chemical USA, Michigan Div. Mfg.		Motor oven			
	Franklin Iron and Metal Co.	Scrap processors	Wire reclaim fce.			
	General Electric Co.	Electric lamps	NG burners; Glass halogen-hybri			
	General Electric Co., Hotpoint Range Div.	Household cooking equipment	Bake oven			
	Georgia Gulf Corp.		EDC cracking fce.; OHC start-up htr.			
	Hevi-Duty Electric		Core and coil baking			
	Indiana Steel and Wire Corp.		NG process fces.			
	Louis Padnos Iron and Metal	Scrap processing	Reclaim			
	RayCarl Products, Div. of Camcar/Textron, Inc.		Water evaporator			
	Richardson Brothers Co.	Wood household furniture	Heat-cleaning oven			
	Spina Electric Co.		Burn-off oven			
	Zenith Electronics Corp.		Red phosphorus kiln			
	Dallas Semiconductor; GMC Powertrain; H Hirschfield Sons, Co.; IBM; Laro Coal and Iron Co.; Minkin Metals Co.; Praxair, Inc.; Soles Electric Co., Inc.; Standard Lead Co.; Tempset, Inc.; Vastar Resources, Inc.					
39900601	Miscellaneous Manufacturing Industries, Process Heater/Furnace, Natural Gas		ICCR *	39	10 year	35
	Concord Industries, Inc.		Crystalizer; Dehumidifying dryer			
	Croda Apex Adhesives		Water evaporator			
	Dawn Equipment Co.		Dry-off oven; Bake oven			

SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count
	Plant	Plant Description	Combustor Description			
	<i>Hendrickson Spring</i>		<i>NG fces.; Parabolic fce.</i>			
	<i>Ingersoll Products</i>	<i>Farm and garden machinery</i>	<i>Fce.; Slab heating fce.; Heat treat fce.; Draw fce.; Paint burn-off oven</i>			
	<i>International Spring Co.</i>		<i>Stress relieving oven</i>			
	<i>Klein Tool Co.</i>	<i>Machine tools, metal types</i>	<i>Gas-fired annealing fce.</i>			
	<i>McLaughlin Body Co., Gout Products</i>		<i>NG burners</i>			
	<i>Medalist, Inc.</i>		<i>Heat treat fce.; Tempering fce.</i>			
	<i>Morse Automotive Corp.</i>		<i>Oven; Iron phosphate dry-off and washer htr.</i>			
	<i>Navistar International</i>	<i>Farm and garden machinery</i>	<i>Drying oven</i>			
	<i>Riverdale Plating and Heat Treating Co.</i>		<i>Belt hardening fce.</i>			
	<i>US Can</i>	<i>Metal cans</i>	<i>Rapid make-up air units; Rooftop heating/cooling</i>			
	<i>Universal Oil Products Co., Process Div.</i>	<i>Chemical preparations, nec</i>	<i>Drying oven; Reactor preheater</i>			
3999000 1	Miscellaneous Manufacturing Industries, Distillate Oil (No. 2): Process Heaters		ICCR *	39	10 year	26
	<i>Celotex Corp.</i>	<i>Asphalt felts and roofing</i>				
	<i>Coronet Industries, Inc.</i>		<i>Fluid bed reactor; Defluorinating fluid bed</i>			
	<i>Ford Motor Co.</i>		<i>Slot fces.</i>			
	<i>H and D, Inc.</i>		<i>Heating equipment; Heating and dry oven</i>			
	<i>Hickman Williams and Co.</i>		<i>Coke dryer</i>			
	<i>Intermet Corp., Radford</i>	<i>Gray iron foundry</i>	<i>LFC metal melting</i>			
	<i>Kammer Asphalt Paving Co.</i>	<i>Asphalt batch plant</i>	<i>Tar htr.</i>			
	<i>Louisiana Pacific Corp.</i>		<i>Thermal oil htr.</i>			
	<i>Molesworth Paving Co.</i>	<i>Asphalt batch plant</i>	<i>Tar htr.</i>			

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SCC Code	SCC Description		MACT Project	SIC Code(s)	"Bin"	Count	
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
		<i>PVS Chemicals, Inc.</i>	<i>Industrial inorganic chemicals</i>	<i>Oil-fired preheater</i>			
		<i>Saginaw Asphalt Paving Co.</i>		<i>Burner</i>			
		<i>Sterling Diagnostic Imaging, Inc.</i>	<i>Mfg. X-ray film</i>	<i>Polymer CP and EP; Polyester film coating</i>			
		<i>Continental Grain; Dust Control Service Pr A.; Eugene Welding Co.; GMC Bus and Truck Group; Union Pacific Railroad Co.</i>					
3999000 2	Miscellaneous Manufacturing Industries, Residual Oil: Process Heaters			ICCR *	39	10 year	20
		<i>Allied Signal Detroit Tar Plant</i>		<i>Batch still; Tar htr.</i>			
		<i>American National Can Co.</i>	<i>Aluminum can mfg.</i>				
		<i>Angelica Healthcare Services Group, Inc.</i>		<i>Tumblers</i>			
		<i>Celotex Corp.</i>	<i>Asphalt felts and coating</i>				
		<i>Intermet Corp., Radford</i>	<i>Gray iron foundry</i>	<i>LFC metal melting</i>			
		<i>LeFere Forge and Machine Co.</i>	<i>Iron and steel forgings</i>	<i>Heating and dry oven</i>			
		<i>Melling Forging Co.</i>		<i>Forge fce.</i>			
		<i>Owens Corning Fiberglass Co., Trumbull Div.</i>		<i>Asphalt htr.</i>			
		<i>Sterling Diagnostic Imaging, Inc.</i>	<i>Mfg. X-ray film</i>	<i>Polymer CP and EP; Polyseter film coating</i>			
3999000 3	Miscellaneous Manufacturing Industries, Natural Gas: Process Heaters			ICCR *	39	10 year	1318
3999000 4	Miscellaneous Manufacturing Industries, Process Gas: Process Heaters			ICCR *	39	10 year	7
		<i>Chrysler Corp., Jefferson North Assembly</i>		<i>Paint sludge dryer</i>			
		<i>Treat All Metals, Inc.</i>	<i>Metal job shop</i>	<i>Heat treating ovens</i>			
		<i>Meridian, Inc.; The Dow Chemical Co.; Wash and Dry Coin Laundry</i>					
		Total count				11342	

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* Further investigation necessary to determine whether all in count are indirect-fired process heaters or direct-fired units (e.g., dryers, kilns, etc.)

Table 2. Process Heaters: Information Gathering Recommended Under Another MACT Category

SCC Code	SCC Description	MACT Project	SIC Code(s)	"Bin"	Count
30100507	Chemical Manufacturing, Carbon Black Production, Pellet Dryer	Carbon Black Production	2895	10 year	149
30101202	Chemical Manufacturing, Hydrofluoric Acid, Rotary Kiln: Acid Reactor	Hydrogen Fluoride Production	2819	10 year	52
30102104	Chemical Manufacturing, Sodium Carbonate, Monohydrate Process: Rotary Ore Calciner: Gas-fired	Photographic Chemicals Production	2812	10 year	1
30102106	Chemical Manufacturing, Sodium Carbonate, Rotary Soda Ash Dryers	Photographic Chemicals Production	2812	10 year	4
30102822	Chemical Manufacturing, Normal Superphosphates, Curing	Phosphate Fertilizers Production	2874	10 year	2
30102824	Chemical Manufacturing, Normal Superphosphates, Dryer	Phosphate Fertilizers Production	2874	10 year	3
30102907	Chemical Manufacturing, Triple Superphosphate, Granulator: Curing	Phosphate Fertilizers Production	2874	10 year	3
30102922	Chemical Manufacturing, Triple Superphosphate, Curing	Phosphate Fertilizers Production	2874	10 year	2
30102924	Chemical Manufacturing, Triple Superphosphate, Dryer	Phosphate Fertilizers Production	2874	10 year	3
30103022	Chemical Manufacturing, Ammonium Phosphates, Curing	Phosphate Fertilizers Production	2874	10 year	2
30103024	Chemical Manufacturing, Ammonium Phosphates, Dryer	Phosphate Fertilizers Production	2874	10 year	7
30113004	Chemical Manufacturing, Ammonium Sulfate, Caprolactum By-product: Rotary Dryer	Ammonium Sulfate Production-Caprolactum By-Product Plants	2869	10 year	11
30113005	Chemical Manufacturing, Ammonium Sulfate, Caprolactum By-product: Fluid Bed Dryer	Ammonium Sulfate Production - Caprolactum By-Product Plants	2869	10 year	3

SCC Code	SCC Description	MACT Project	SIC Code(s)	“Bin”	Count
30190004	Chemical Manufacturing, Fuel Fired Equipment, Process Gas (Ethylene Cracking Units)	Ethylene	2869	10 year	
30300002	Primary Metal Production, Aluminum Ore (Bauxite), Drying Oven	Alumina Processing	1051	10 year	13
30300105	Primary Metal Production, Aluminum Ore (Electro-reduction), Anode Baking Furnace	Primary Aluminum Production	3334	7 year	52
30300506	Primary Metal Production, Primary Copper Smelting, Ore Concentrate Dryer	Primary Copper Smelting	3331	7 year	8
30300522	Primary Metal Production, Primary Copper Smelting, Slag Cleaning Furnace	Primary Copper Smelting	3331	7 year	2
30300611	Primary Metal Production, Ferroalloy, Open Furnace, Ore Dryer	Ferroalloys Production	3313	7 year	3
30400510	Secondary Metal Production, Lead Battery Manufacture, Lead Reclaiming Furnace	Lead Acid Battery Manufacturing	3691	Deleted	8
30400526	Secondary Metal Production, Lead Battery Manufacture, Lead Reclaiming Furnace	Lead Acid Battery Manufacturing	3691	Deleted	4
30400720	Secondary Metal Production, Steel Foundries, Sand Dryer	Steel Foundries	3324, 3325	10 year	4
30500201	Mineral Products, Asphalt Concrete, Rotary Dryer: Conventional Plant	Asphalt Concrete Manufacturing	2951	10 year	1754
30500205	Mineral Products, Asphalt Concrete, Drum Dryer: Hot Asphalt Plants	Asphalt Concrete Manufacturing	2951	10 year	1160
30500210	Mineral Products, Asphalt Concrete, Asphalt Heater: Waste Oil	Asphalt Processing	2951	10 year	6
30500211	Mineral Products, Asphalt Concrete, Rotary Dryer Conventional Plant with Cyclone	Asphalt Concrete Manufacturing	2951	10 year	53
30500301	Mineral Products, Brick Manufacture, Raw Material Drying	Clay Products Manufacturing	3251	10 year	58
30500304	Mineral Products, Brick Manufacture, Curing	Clay Products Manufacturing	3251	10 year	14
30500307	Mineral Products, Brick Manufacture, Calcining	Clay Products Manufacturing	3251	10 year	6
30500310	Mineral Products, Brick Manufacture, Curing and Firing: Sawdust Fired Tunnel Kilns	Clay Products Manufacturing	3251	10 year	15

SCC Code	SCC Description	MACT Project	SIC Code(s)	“Bin”	Count
30500311	Mineral Products, Brick Manufacture, Curing and Firing: Gas-fired Tunnel Kilns	Clay Products Manufacturing	3251	10 year	176
30500312	Mineral Products, Brick Manufacture, Curing and Firing: Oil-fired Tunnel Kilns	Clay Products Manufacturing	3251	10 year	16
30500313	Mineral Products, Brick Manufacture, Curing and Firing: Coal-fired Tunnel Kilns	Clay Products Manufacturing	3251	10 year	26
30500314	Mineral Products, Brick Manufacture, Curing and Firing: Gas-fired Periodic Kilns	Clay Products Manufacturing	3251	10 year	126
30500316	Mineral Products, Brick Manufacture, Curing and Firing: Coal-fired Periodic Kilns	Clay Products Manufacturing	3251	10 year	21
30500318	Mineral Products, Brick Manufacture, Tunnel Kiln: Wood-fired	Clay Products Manufacturing	3251	10 year	1
30500606	Mineral Products, Cement Manufacturing (Dry Process), Kilns	Portland Cement Manufacturing	3241	7 year	230
30500623	Mineral Products, Cement Manufacturing (Dry Process), Preheater/Precalciner Kiln	Portland Cement Manufacturing	3241	7 year	2
30500706	Mineral Products, Cement Manufacturing (Wet Process), Kilns	Portland Cement Manufacturing	3241	7 year	114
30500801	Mineral Products, Ceramic Clay/Tile Manufacture, Drying	Clay Products Manufacturing	3253	10 year	188
30501201	Mineral Products, Fiberglass Manufacturing, Regenerative Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229	7 year	15
30501202	Mineral Products, Fiberglass Manufacturing, Recuperative Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229	7 year	7
30501205	Mineral Products, Fiberglass Manufacturing, Curing Oven: Rotary Spun (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229	7 year	93
30501207	Mineral Products, Fiberglass Manufacturing, Unit Melter Furnace (Wool-type Fiber)	Wool Fiberglass Manufacturing	3229	7 year	10
30501603	Mineral Products, Lime Manufacture, Calcining: Vertical Kiln	Lime Manufacturing	3274	10 year	89

SCC Code	SCC Description	MACT Project	SIC Code(s)	“Bin”	Count
30501604	Mineral Products, Lime Manufacture, Calcining: Rotary Kiln	Lime Manufacturing	3274	10 year	197
30501605	Mineral Products, Lime Manufacture, Calcining: Gas-fired Calcimatic Kiln	Lime Manufacturing	3274	10 year	16
30501606	Mineral Products, Lime Manufacture, Fluidized Bed Kiln	Lime Manufacturing	3274	10 year	13
30501617	Mineral Products, Lime Manufacture, Multiple Hearth Calciner	Lime Manufacturing	3274	10 year	14
30501619	Mineral Products, Lime Manufacture, Calcining: Gas-fired Rotary Kiln	Lime Manufacturing	3274	10 year	1
30501702	Mineral Products, Mineral Wool, Reverberatory Furnace	Mineral Wool Production	3296	7 year	1
30501704	Mineral Products, Mineral Wool, Curing Oven	Mineral Wool Production	3296	7 year	18
30600301	Petroleum Industry, Catalytic Cracking Units, Thermal Catalytic Cracking Unit	Refinery II	2911		62
30700104	Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Recovery Furnace/Direct Contact Evaporator	Pulp and Paper Production	2611, 2621, 2631	7 year	250
30700106	Pulp and Paper and Wood Products, Sulfate (Kraft) Pulping, Lime Kiln	Pulp and Paper Production	2611, 2621, 2631	7 year	209
30700703	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Particleboard Drying	Plywood/Particle Board Manufacturing	2435	10 year	214
30700704	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Waferboard Dryer	Plywood/Particle Board Manufacturing	2435	10 year	72
30700705	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Coe Dryer	Plywood/Particle Board Manufacturing	2435	10 year	21
30700706	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Predryer	Plywood/Particle Board Manufacturing	2435	10 year	21
30700709	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Hardboard: Bake Oven	Plywood/Particle Board Manufacturing	2435	10 year	28
30700712	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Fir: Sapwood: Gas-fired Dryer	Plywood/Particle Board Manufacturing	2435	10 year	8
30700713	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Fir: Heartwood Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435	10 year	14

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SCC Code	SCC Description	MACT Project	SIC Code(s)	"Bin"	Count
30700714	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Larch Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435	10 year	3
30700715	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Southern Pine Plywood Veneer Dryer	Plywood/Particle Board Manufacturing	2435	10 year	92
30700716	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Poplar Wood Fired Veneer Dryer	Plywood/Particle Board Manufacturing	2435	10 year	99
30700717	Pulp and Paper and Wood Products, Plywood/Particleboard Operations, Gas Veneer Dryer: Pines	Plywood/Particle Board Manufacturing	2435	10 year	2
	Total count				5871

Table 3. Process Heaters: Information Gathering Recommended By Other Means

SCC Code	SCC Description		Basis	SIC Code(s)	Count	
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
30100603	Chemical Manufacturing, Charcoal Manufacturing, Batch Kiln			Pyrolysis process; being investigated by Region VII for inclusion on source category list	2861	62
30100604	Chemical Manufacturing, Charcoal Manufacturing, Continuous Kiln			Same as above	2861	7
30111201	Chemical Manufacturing, Elemental Phosphorous, Calciner			Direct-fired process	2819	2
		<i>Rhone-Poulenc Basic Chemicals Co.</i>	<i>Elemental phosphorus</i>	<i>Kiln</i>		
		<i>Akzo Nobel Chemicals, Inc.</i>				
30111202	Chemical Manufacturing, Elemental Phosphorous, Furnace			Direct-fired process	2819	3
		<i>Rhone-Poulenc Basic Chemicals Co.</i>	<i>Elemental phosphorus</i>	<i>Furnace</i>		
30200504	Food and Agriculture, Feed and Grain Country Elevators, Drying			Direct-fired process	5153	444
30200522	Food and Agriculture, Feed and Grain Country Elevators, Counter-flow Dryer			Direct-fired process	5153	2
30200604	Food and Agriculture, Feed and Grain Country Elevators, Drying			Direct-fired process	4221	2706
30200742	Food and Agriculture, Grain Millings, Dry Corn Milling: Grain Drying			Direct-fired process	2041	108
30200773	Food and Agriculture, Grain Millings, Rice: Drying			Direct-fired process	2041	56
30200784	Food and Agriculture, Grain Millings, Soybean: Drying			Direct-fired process	2041	123
30201206	Food and Agriculture, Fish Processing, Direct Fired Dryer			Direct-fired process	2091	9
30201601	Food and Agriculture, Sugar Beet Processing, Pulp Dryer : Coal-fired			Direct-fired process	2063	65
30203104	Food and Agriculture, Export Grain Elevators, Drying			Direct-fired process	4221	17
30203811	Food and Agriculture, Animal/Poultry Rendering, Blood Dryer: Natural Gas Direct Fired			Direct-fired process	2077	1
30300313	Primary Metal Production, By-product Coke Manufacturing, Coal Preheater			Direct-fired process	3312	22
		<i>Aluminum Company of America</i>	<i>Primary aluminum smelting</i>			
		<i>Chandler Materials</i>	<i>Produce hadite for aggreg</i>	<i>Coal pulverizing mill</i>		
		<i>US Steel Co., Gary Works</i>	<i>Iron and steel fabrication and prod.</i>	<i>Precarbon</i>		
		<i>Inland Steel Flat Products</i>				

SCC Code	SCC Description		Basis	SIC Code(s)	Count
	<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
30301403	Primary Metal Production, Barium Ore Processing, Dryers/Calciners		Direct-fired process	3295	123
	<i>Baroid Drilling Fluids, Inc.</i>	<i>Barite processing</i>			
	<i>Burgess Pigment Co.</i>	<i>Kaolin calcining</i>			
	<i>Cytec Industries, Inc.</i>	<i>Kaolin calcining; Grinding</i>			
	<i>ECC America, Inc.</i>	<i>Mineral extenders, filler</i>			
	<i>ECC International</i>	<i>Kaolin processing; Ground/treated minerals</i>			
	<i>Englehard Corp.</i>	<i>Kaolin processing; Fluid cracking catalyst; Storage and conveying; Fullers earth processing</i>			
	<i>Evans Clay Co.</i>	<i>Kaolin processing</i>			
	<i>Feldspar Corp.</i>	<i>Feldspar processing</i>			
	<i>Galite Corp.</i>	<i>Aggregated mfg.</i>			
	<i>General Refractories Co.</i>	<i>Kaolin clay processing</i>			
	<i>Georgia Tennessee Mining and Chemical Co.</i>	<i>Fullers earth</i>			
	<i>Huber JM Corp.</i>	<i>Kaolin processing</i>			
	<i>Kent-Tenn Clay</i>	<i>Kaolin processing</i>			
	<i>M&M Clays, Inc.</i>	<i>Kaolin processing</i>			
	<i>Milwhite Co., Inc.</i>	<i>Fullers earth processing</i>			
	<i>Morie Jesse and Son Co., Inc.</i>	<i>Sand processing</i>			
	<i>Mullite Co.</i>	<i>Kaolin processing</i>			
	<i>Nord Kaolin Co.</i>	<i>Kaolin processing</i>			
	<i>Oil Dri Corp.</i>	<i>Fullers earth</i>			
	<i>Southern Talc Co.</i>	<i>Talc and barite processor</i>			
	<i>Thiele Kaolin Co.</i>	<i>Kaolin processing</i>			
	<i>Waverly Mineral Prod. Div., Johnson March</i>	<i>Fullers earth processing</i>			
30400207	Secondary Metal Production, Copper, Scrap Dryer (Rotary)		Direct-fired process	3362	10

SCC Code	SCC Description		Basis	SIC Code(s)	Count
	<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
30400231	Secondary Metal Production, Copper, Scrap Dryer		Direct-fired process	3362	14
30400807	Secondary Metal Production, Zinc, Concentrate Dryer		Direct-fired process	3341	4
30400901	Secondary Metal Production, Malleable Iron, Flux Furnace		Direct-fired process	3322	3
30402004	Secondary Metal Production, Furnace Electrode Manufacture, Bake Furnaces		Direct-fired process	3624	36
30402201	Secondary Metal Production, Metal Heat Treating, Furnace: General		Direct-fired process	3398	440
30404901	Secondary Metal Production, Miscellaneous Casting and Fabricating, Wax Burnout Oven		Direct-fired process	3300	18
30404902	Secondary Metal Production, Miscellaneous Casting and Fabricating, Wax Burnout Oven		Direct-fired process	3300	1
30500402	Mineral Products, Calcium Carbide, Coke Dryer		Direct-fired process	2819	13
30500501	Mineral Products, Castable Refractory, Raw Material Dryer		Direct-fired process	3255	25
30500504	Mineral Products, Castable Refractory, Curing Oven		Direct-fired process	3255	58
30500915	Mineral Products, Clay and Fly Ash Sintering, Rotary Kiln		Direct-fired process	3295	13
30500916	Mineral Products, Clay and Fly Ash Sintering, Dryer		Direct-fired process	3295	9
30501211	Mineral Products, Fiberglass Manufacturing, Regenerative Furnace (Textile-type Fiber)		Direct-fired process	3229	1
30501212	Mineral Products, Fiberglass Manufacturing, Recuperative Furnace (Textile-type Fiber)		Direct-fired process	3229	41
30501213	Mineral Products, Fiberglass Manufacturing, Unit Melter Furnace (Textile-type Fiber)		Direct-fired process	3229	4
30501215	Mineral Products, Fiberglass Manufacturing, Curing Oven (Textile-type Fiber)		Direct-fired process	3229	49
30501311	Mineral Products, Frit Manufacture, Rotary Dryer (usually not used with a continuous furnace)		Direct-fired process	2899	2
30501401	Mineral Products, Glass Manufacture, Furnace/General		Direct-fired process	3211	29
30501402	Mineral Products, Glass Manufacture, Container Glass: Melting Furnace		Direct-fired process	3221	203
30501403	Mineral Products, Glass Manufacture, Flat Glass: Melting Furnace		Direct-fired process	3211	72
30501404	Mineral Products, Glass Manufacture, Pressed and Blown Glass: Melting Furnace		Direct-fired process	3229	66
30501414	Mineral Products, Glass Manufacture, Ground Cullet Beading Furnace		Direct-fired process	3211	13
30501501	Mineral Products, Gypsum Manufacture, Rotary Ore Dryer		Direct-fired process	3275	66
30501511	Mineral Products, Gypsum Manufacture, Continuous Kettle: Calciner		Direct-fired process	3275	80
30501512	Mineral Products, Gypsum Manufacture, Flash Calciner		Direct-fired process	3275	39
30501520	Mineral Products, Gypsum Manufacture, Drying Kiln		Direct-fired process	3275	50
30501801	Mineral Products, Perlite Manufacturing, Vertical Furnace		Direct-fired process	3295	34

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SCC Code	SCC Description		Basis	SIC Code(s)	Count
	<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
30501901	Mineral Products, Phosphate Rock, Drying		Direct-fired process	1475	42
30501905	Mineral Products, Phosphate Rock, Calcining		Direct-fired process	1475	21
30501906	Mineral Products, Phosphate Rock, Rotary Dryer		Direct-fired process	1475	2
30502102	Mineral Products, Salt Mining, Granulation: Stack Dryer		Direct-fired process	1476	19
30502720	Mineral Products, Industrial Sand and Gravel, Sand Drying: Gas- or Oil-fired Rotary or Fluidized Bed Dryer		Direct-fired process	1442	2
30503202	Mineral Products, Asbestos Milling, Drying		Direct-fired process	1499	1
30503402	Mineral Products, Feldspar, Dryer		Direct-fired process	1499	2
30504033	Mineral Products, Mining and Quarrying of Nonmetallic Minerals, Ore Dryer		Direct-fired process	1400	41
30508909	Mineral Products, Talc Processing, Natural Gas Fired Crude Ore Dryer		Direct-fired process		1
30508955	Mineral Products, Talc Processing, Pellet Dryer		Direct-fired process		3
30800705	Rubber and Miscellaneous Plastics Products, Fiberglass Resin Products, Wax Burnout Oven		Direct-fired process	3079	19
	Total count				5296

Table 4. Process Heaters: Information Gathering Being Investigated For Inclusion In The ICCR Effort

SCC Code	Description			MACT Project	SIC Code(s)	“Bin”	Count
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>			
30100108	Chemical Manufacturing, Adipic Acid, Dryer				2869		1
		<i>SCM Chemicals</i>	<i>Inorganic pigments</i>				
30104201	Chemical Manufacturing, Lead Alkyl Manufacturing (Sodium/Lead Alloy Process), Recovery Furnace				2869		3
		<i>Dual Lite Mfg.; Ethyl Corporation</i>					
30112541	Chemical Manufacturing, Chlorine Derivatives, Vinyl Chloride: Cracking Furnace				2869		3
		<i>PPG Industries</i>		<i>Cracker</i>			
		<i>Dow Chemical USA, La. Division</i>					
30490023	Secondary Metal Production, Fuel Fired Equipment, Natural Gas				3300		4
		<i>CSM Industries, Inc.</i>		<i>Sintering fce.</i>			
		<i>Farmland Industries, Inc.</i>	<i>Fertilizer plant</i>				
		<i>Nucor Steel</i>	<i>Steel mfg.</i>	<i>Melt shop roof monitors</i>			
		<i>Olin Corp., Brass Group</i>	<i>Copper rolling and drawing</i>	<i>Vaporizer flare</i>			
30490031	Secondary Metal Production, Fuel Fired Equipment, Distillate Oil: Furnaces				3300		5
		<i>Acme Die Casting</i>	<i>Aluminum/zinc die casting</i>	<i>Melt fces.</i>			
		<i>General Motors Corp., Powertrain Div., Saginaw</i>		<i>Briquette plant</i>			
		<i>Moline Forge, Inc.</i>	<i>Iron and steel forgings</i>	<i>Forge fces.gas</i>			
		<i>Hoeganaes Corp.</i>					
30490033	Secondary Metal Production, Fuel Fired Equipment, Natural Gas: Furnaces				3300		355
30490034	Secondary Metal Production, Fuel Fired Equipment, Process Gas: Furnaces				3300		36
		<i>Achievor Tire, L.P.</i>	<i>Tires and inner tubes</i>	<i>Curing oven</i>			

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		<i>Alumax Extrusions, Inc.</i>	<i>Metal doors, sash, and trim</i>	<i>Die ovens</i>	
		<i>Chrysler Corp.</i>	<i>Automobile parts</i>	<i>Gas generator; Hardening fce.; All case fce.; Pin and draw fce.</i>	
		<i>Foote-Jones/Illinois Gear</i>	<i>Speed changes, drives, and gears</i>	<i>Convection draw fce.; Heat treat fce.</i>	
		<i>General Power Equipment Co.</i>	<i>Lawn and garden equipment</i>	<i>Dryer</i>	
		<i>Halstead Industries, Inc.</i>	<i>Copper rolling and drawing</i>	<i>Exothermic generator</i>	
		<i>Hy Lift Div., Spx Corp.</i>	<i>Mfg. plant</i>	<i>Box fce.; Continuous draw fce.</i>	
		<i>Peoria Apron and Towel</i>	<i>Dry cleaning plant</i>	<i>Dryer steam generator</i>	
		<i>Trojan Heat Treat Co., Inc.</i>		<i>Generator</i>	
		<i>USX Corp., Irvin Works</i>	<i>Blast fces.</i>	<i>Annealing fces.; Continuous annealing; Open coil annealing</i>	
		<i>Great Lakes Steel Div.</i>			
30490035	Secondary Metal Production, Fuel Fired Equipment, Propane			3300	1
		<i>Country Cast Products, Inc.</i>		<i>Mold drying oven</i>	
30790021	Pulp and Paper and Wood Products, Fuel Fired Equipment, Distillate Oil (No. 2)			2430	1
		<i>Groveton Paperboard, Inc.</i>		<i>PO-BP</i>	
39990022	Miscellaneous Manufacturing Industries, Residual Oil			39	1
		<i>Marathon Oil Co.</i>			
	Total count				410

Table 5. Process Heaters: Recommended for Moving to Another ICCR Source Category

SCC Codes	SCC Description		MACT Project	SIC Code(s)	“Bin”	Count
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
30890013	Rubber and Miscellaneous Plastics Products, Process Heaters, Natural Gas: Incinerators		ICCR (incinerators)	3079	10 year	17
30902501	Fabricated Metal Products, Drum Cleaning/Reclamation, Drum Burning Furnace		ICCR (incinerators)	5085	10 year	60
		<i>Argyle Industries</i>		<i>Drying oven</i>		
		<i>Bakerstown Container Corp.</i>	<i>Reconditions 55 gal drums</i>			
		<i>Gas turbine engine prod. plant</i>		<i>Atmosphere fce.</i>		
		<i>Kitzinger Cooperage Corp.</i>	<i>Drum reconditioning</i>	<i>Reclamation fce.</i>		
		<i>Mid-America Steel Drum Co.</i>	<i>Steel drums</i>	<i>Drum reclamation fce.</i>		
		<i>Moore Drums, Inc.</i>	<i>Steel drum reconditioning</i>	<i>Reclaim fce.</i>		
		<i>Myers Container Corp.</i>	<i>Entire source</i>	<i>UM incinerator</i>		
		<i>Myers Container Corp.</i>	<i>Drum incinerator, painting</i>	<i>Fabricated metal prod.</i>		
		<i>New England Container</i>	<i>Misc. plastics products</i>	<i>Batch oven; Exterior oven; Interior oven; Drum recond./afterburner</i>		
31000411	Oil and Gas Production, Process Heaters, Distillate Oil (No. 2)		ICCR (boilers)	1311	10 year	4
		<i>Amoco Production Co., Anschutz</i>	<i>Natural gas processing</i>	<i>2000-kw generator; G10CE-1602-3</i>		
		<i>Meridian Oil Production, Inc.</i>	<i>Natural gas compression</i>			
		<i>Mobil Producing Texas and New Mexico</i>				
31000414	Oil and Gas Production, Process Heaters, Natural Gas: Steam Generators		ICCR (boilers)	1311	10 year	122
		<i>Amerada Hess, Tioga Gas Plant</i>	<i>Natural gas liquids</i>	<i>Boilers</i>		
		<i>American Pipeline Co.</i>	<i>Natural gas compression &</i>			
		<i>American Processing L.P.</i>	<i>Natural gas compression &</i>			
		<i>Amoco, Beaver Creek</i>	<i>Natural gas processing</i>	<i>Supplemental boiler</i>		
		<i>Amoco Production Co., Anschutz</i>	<i>Natural gas processing</i>	<i>2000 kw generator</i>		

March 12, 1997

SCC Codes	SCC Description		MACT Project	SIC Code(s)	“Bin”	Count
		Plant	Plant Description	Combustor Description		
		Amoco, Whithey Canyon	Natural gas processing	Glycon dehy regenerator		
		Arco Oil and Gas Co.	Natural gas processing			
		Ark Western Gas, Drake Compressor Station	Natural gas compression	Dehydrator reboil burner		
		Chevron, Carter Creek	Natural gas processing			
		CIG Rawlins Co.	Natural gas transmission	Regeneration htr.		
		Colorado Interstate Gas	Natural gas processing	Boiler; Emergency generator		
		Costilla Petroleum Corp.	Natural gas compression &			
		El Paso Natural Gas Co.	Natural gas compression &			
		Exxon Company USA	Natural gas compression			
		Exxon Company USA, Flomaton Gas Treatment Facility	Crude petroleum and natural	Power boiler		
		Exxon, LaBarge Dehydration Facility	Natural gas processing	Emergency generator		
		GPM Gas Corp.	Oil and gas production; Natural gas processing			
		Highlands Gathering and Processing Co.	Natural gas compression &			
		KN Energy, Big Springs	Natural gas pipeline compressor station	NG glycol reboiler; NG glycol htr.; NG htr.		
		Koch Hydrocarbons, McKenzie Gas Plant	Natural gas liquids	Boiler		
		Liquid Energy Corp.	Natural gas compression &			
		Lone Star Pipeline Co.	Compression of gas			
		Marathon Oil Co.	Petroleum			
		Mobil Natural Gas, Inc.	Natural gas processing			
		MOESPI	Crude petroleum and natural	Boiler		
		NCG Energy, Inc., Ringwood Plant	Natural gas liquids			
		Oregon Basin Gas Plant	Natural gas processing	Process boiler		
		Phillips Petroleum, Chatom Gas Treatment and Processing		Boiler		

March 12, 1997

SCC Codes	SCC Description		MACT Project	SIC Code(s)	“Bin”	Count
		<i>Plant</i>	<i>Plant Description</i>	<i>Combustor Description</i>		
		<i>Shell Western E and P, Inc.</i>	<i>Gas processing plant</i>			
		<i>Sulfur River Resources, LC</i>	<i>Sour gas plant: gas, LPG</i>			
		<i>Tesoro Refinery</i>	<i>Petroleum refining</i>			
		<i>Texaco Exploration and Production, Inc.</i>	<i>Crude petroleum and natural g; NGL and sulfur extraction</i>			
		<i>Transcontinental Gas Pipe Line Corp.</i>	<i>Natural gas and sulfur proc</i>			
		<i>Warren Petroleum Co.</i>	<i>Natural gas compression &</i>	<i>Generator</i>		
		<i>West Texas Gas, Inc.</i>	<i>Natural gas processing</i>			
		<i>Western Gas Resources, Inc.</i>	<i>Natural gas compression &</i>			
		<i>Williams Field Services</i>	<i>Gas processing, CO2 removal; Natural gas transmission</i>	<i>Boiler</i>		
		<i>Williston Basin IPC</i>	<i>Natural gas transmission</i>	<i>Generator; Auxiliary generator</i>		
		<i>W.H. Hunt Trust Estate</i>	<i>Natural gas liquids</i>	<i>Boilers; Htrs.</i>		
		<i>Canyon Reef Carriers, Inc.; DeSoto Oil and Gas, Inc.; Javelina Co.; Mapco Gas Products; Peoples Natural Gas; Pittencrieff America, Inc.; Quantum Chemical Corp.; Tristar Gas Co.</i>				
31000415	Oil and Gas Production, Process Heaters, Process Gas: Steam Generators		ICCR (boilers)	1311	10 year	41
		<i>Enron Louisiana Energy Co.</i>		<i>Boilers; Steam superheaters</i>		
		<i>NGC Energy Resources, Ltd Partnership</i>	<i>Natural gas processing</i>	<i>Steam boiler</i>		
		<i>Arco Oil and Gas Co.; Houston Pipeline Co., Enron Gas Co.; Parker and Parsley Gas Processing Co.</i>				
	Total count					244

ATTACHMENT 7

STATIONARY COMBUSTION TURBINE WORK GROUP
PRESENTATION

1. Stationary Combustion Turbines
Presentation on Status and Work Group Related Issues
March 20, 1997
2. March 17, WG Meeting - Highlights
 - ◆ Control device vendor presentation made by ICAC on catalytic add-on controls
 - ◆ Task groups were formed & task group leaders were identified
 - Database QA/QC and enhancement
 - Subcategories development
 - Technologies for HAP reduction for existing and new sources
 - Identification of good operating practices
 - HAP vs. Criteria pollutant tradeoff
 - Source testing
 - ◆ Next WG meeting - April
 - Develop goals for each task group and develop 6 month schedule for WG workplan
 - Conduct symposium on operating practices and turbine design consideration
3. Information Collection
 - ◆ Status:
 - Evaluated and concurred with the recommendations of the CC Subgroup, No need to send out a Section 114 ICR
 - The EPA ICCR Database (after QA/QC & enhancement)
 - Sufficient information for determining population
 - Sufficient information to develop model plants
4. Information Collection (Cont.)
 - ◆ Status (Cont.)
 - Plan to use information that is voluntarily collected, if offered
 - Plan to use manufacturers and vendor databases, and/or commercial database (market research databases), if available and affordable
 - Concerns:
 - Population, are small turbines adequately represented?
 - EPA Database, needs to be evaluated for quality
5. Control Technologies
 - ◆ MACT Floor for existing turbines appears to be "No Control"
 - Based on information in EPA's Database
 - Based on the collective WG expertise
 - ◆ Do we need to go above the floor?
 - ◆ Possible controls:
 - CO oxidizers - approximately 150 units installed
 - Catalytic add-on controls system
 - Process controls - Catalytic combustors may have promise
6. Control Technologies (Cont.)
 - ◆ It appears to be feasible to design a catalytic system for HAP emissions control
 - ◆ No known HAP test data for add-on controls
 - ◆ No known HAP test data for effects of good operating practices
 - ◆ No emissions data available on what parameters affect HAP emissions
 - ◆ Some criteria pollutant control strategies appear to increase HAP emissions

7. Determining MACT

- ◆ For existing sources:
 - Current information: MACT Floor appears to be no Control
 - Going above the floor depends on:
 - Feasibility*
 - Cost effectiveness*
 - Other factors*
- ◆ For new sources:
 - No specific controls identified for HAPs
 - Expect that testing will be necessary to evaluate emission reduction performance
 - Technology transfer?

8. Next Steps

- ◆ Identify and evaluate potential HAP control technologies
 - Meet with turbine manufacturers
 - Work on the possibility of conducting laboratory studies for determining control equipment efficiencies on low HAP concentration
- ◆ Work with the Testing and Monitoring Protocol Workgroup to determine:
 - Test protocol
 - Number of tests necessary
 - Costs associated with testing

9. Requesting Advice of the CC

- ◆ Issue 1: If MACT for existing turbines is determined to be "no control," how should the statutory requirements to establish a standard be fulfilled? (so that each state does not have to develop standards under 112(j))
- ◆ Issue 2: If technology reduces HAPs at the expense of criteria pollutants or vice-versa, how to prioritize and incorporate in MACT floor
- ◆ Issue 3: If source test cost are high, i.e. a lot more than we have funds allocated, how can we leverage costs so that all needed testing be done? Are priority testing decisions among source categories need to allocate testing resources?

ATTACHMENT 8

BOILER WORK GROUP REPORT

Boiler Workgroup Report to the Coordinating Committee

March 18, 1997

Areas of Agreement

The Workgroup agreed to nominate Jim Stumbar as the Stakeholder co-chair and Michael Hewett as the Stakeholder co-chair alternate for this coming year. Next year, Jim and Michael will switch positions.

Three subgroups were established: fossil fuel; non-fossil fuel; and wood. An ad hoc group was formed to develop, with input from each subgroup, draft objectives, milestones, and tasks for the three boiler subgroups.

An ad hoc group was formed to collect and review state boiler regulations.

Established meeting schedule through September. The Workgroup will meet either on Tuesday or Thursdays, in conjunction with the Coordinating Committee, depending on the Coordinating Committee's decision to meet on Tuesday/Wednesday or Wednesday/Thursday.

The Workgroup recommends that the database be made available on compact disk.

The Workgroup agreed to exclude kraft recovery furnaces and bagasse from the ICR because sufficient data exists about these sources.

The Workgroup agreed that the ICR mailing list should be posted to the TTN. This will allow potential recipients to review the list for quality and to prevent facilities participating in voluntary survey efforts from receiving an ICR.

The Workgroup concurred not to establish a size cutoff until necessary data are available and examined. However, Workgroup members who would like to suggest potential size cutoffs should present their ideas and rationales to the Workgroup at the next meeting.

Areas of Disagreement

The Workgroup heard a presentation on why hot water heaters should be included within the scope of the ICCR. There were different opinions regarding whether hot water heaters should be included in the ICCR. Several people questioned whether EPA has authority to regulate hot water heaters and whether the ICCR was the appropriate forum for this issue.

Next Steps

The Workgroup will meet May 1. The agenda will include:

- schedule and milestones for Workgroup/Subgroups;
- subgroup plans to implement these activities;
- database; and,
- state regulations.

Future meetings for the Boiler Workgroup: May 1, May 20 or 22, June 19, July 22 or 24, August 19, and September 16 or 18.

ATTACHMENT 9
BUDGET SUBGROUP REPORT

DRAFT BUDGET SUBGROUP REPORT
For March 19 & 20 Coordinating Committee Meeting

BACKGROUND

- The Budget Subgroup held 2 conference calls to review the draft ICCR budget and suggest ways to address any potential shortfall.
- The attached budget summary (table 1) reflects the recommendations of the information collection subgroup. It includes mailing a survey to up to 20,000 facilities in the ICCR database to collect data on incinerators and non-fossil fuel fired boilers and process heaters.
- The group reviewed the detailed budget back-up (table 2) and concluded that the overall estimates are reasonable and the budget is tight.
- The total estimated expenditures (without source testing) are \$2.435 million, compared to an EPA funding level of \$2.3 million. There is a potential shortfall of \$135,000 in the portion of the budget for ICCR meetings, information collection, database, and source category development activities.

RECOMMENDATIONS

- Given the tight budget, the subgroup recommends that the Coordinating Committee ask EPA to track actual expenditures against the budget and report total cumulative actual expenditures versus total planned expenditures at each Coordinating Committee meeting. This will allow the Committee to identify any significant problems and develop appropriate recommendations. Figure 1 shows total actual and projected expenditures through February 1997.
- The subgroup recommends that the Coordinating Committee consider the following ideas for stakeholder sharing of expenses:
 - Individual members can have their organization pay for meeting space and audiovisual equipment for some Coordinating Committee and Work Group meetings.
 - Coordinating Committee members could be charged a voluntary "registration fee" to attend meetings. The fee would pay for general meeting costs. The fee could be waived for members whose organizations cannot pay it, and would not apply to spectators including the general public. Subgroup members commented that it is easier to

get approval for registration fees than for donations.
Some industry groups charge approximately \$150 for a 1-day meeting and \$250 for a 2-day meeting.

Table 1. ICCR FY97 Budget Summary (\$K)

	Expenses Oct '96 - Mar '97	Projected Apr '97 - Sept '97	Total FY97 Expenses	EPA FY97 Funding	Non-EPA Contributions Oct-Mar
<u>Travel:</u>					
EPA Travel	19	32	51		
Non-EPA Travel ^a	64	112	176		member travel
Subtotal	83	144	227	227	
<u>ICCR Meetings/Source Activities:</u>					
CC & WG Meetings & Facilitation	413	454	867		5 ^b
ICR and Database	304	340	644		
Source Category Development	167	439	606		
Contingency for ICR & Database	14	37	51		
Subtotal	898	1,270	2,168	2,033	
<u>Economic Analysis</u>	10	30	40	40	
<u>Testing</u>	0	0	?	?	
Total (w/out testing)	991	1,444	2,435	2,300	

^a Travel for stakeholders who need assistance from EPA to attend CC or WG meetings.

^b WG meeting costs that EPA did not have to pay due to stakeholder-provided meeting facilities. Assumed this saved EPA \$600 per meeting for meeting room and A/V costs and \$425 labor costs per meeting for the following meetings:

Dec Incinerator WG Mtg in DC - API
Jan Process Heater WG Mtg in DC - CMA
Feb Process Heater WG Mtg in Houston - API
Feb Survey Task Group Mtg in Orlando - HLA
Mar Incinerator WG Mtg in Orlando - IEEC

**Table 2. ICCR Budget for Information Collection
Subgroup Recommendation (K\$)
Revised 3/4/97**

This budget reflects the Information Collection Subgroup recommendations to use the AIRS/OTAG/State Database and to send targeted surveys, in hard copy format, to incinerators and non-fossil fuel/waste-fired boilers and process heaters listed in the database. Assume trade associations may collect and compile information voluntarily on fossil-fuel fired process heaters, and this would also be incorporated into the database.

Note: This table shows the budget in four columns:
(1) October through December, (2) January through March,
(3) April through September, and (4) total for fiscal year
(FY) 1997. The first column, for October through December,
1996, is based on actual expenditures. The second and third
columns are projected expenditures for January through
March 1997 and for April through September 1997,
respectively. The detailed assumptions used to project total
expenditures for the January through September 1997 time
period are shown below each row in the table. For example,
the projected expenses for Coordinating Committee
meetings/minutes and TTN are \$42K for January to March and
\$61K for April through September, for a total of $\$42 + \$61 =$
\$103K for January through September. The basis for the \$103K
estimate is described in detail below that row of the table.
At the January Coordinating Committee meeting a single number
was given for the January to September timeframe. The reason
it has now been broken into two columns (columns 2 and 3) is
that at this point in the ICCR, the only expenditures that
could be changed to address any budget imbalances are those
planned for April through September.

ICCR Budget for Information Collection Subgroup
Recommendation (K\$)

**ICCR Budget for Information Collection Subgroup
Recommendation (K\$)**

	Oct- Dec	Jan- Mar	Apr- Sept	Total
<u>ICCR Operation</u>				
• ICCR Document	15	--	--	15
• Coordinating Committee				
> Meetings/Minutes and TTN	25	42	61	128
<p>Basis for \$103K estimate for Jan-Sept:</p> <p>Assume 5 2-day Coordinating Committee meetings in Jan-Sept (2 RTP, 1 DC, 1 Chicago, 1 LA)</p> <p>I. Meeting Expenses</p> <p>Room rental (2 days) \$1,400</p> <p>A/V equipment \$700</p> <p>Pre-meeting logistics (locate room, setup & A/V arrangements, contracts, update membership lists, nametags, table tents, agenda, notify members of meeting) 60 hours plus materials \$2,500</p> <p>Preparation of meeting presentations and handouts, 40 technical hours, 6 clerical hours \$2,600</p> <p>Copies of handouts and overheads \$500 50 pages x 200 copies x 5¢/page</p> <p>Labor to staff registration table in morning \$900 3 people x 1.5 hours x 2 days</p> <p>Labor for 1 logistics coordinator,^a 12 hours \$450</p> <p>Labor for note-takers (2 people x 16 hours) \$2,000</p> <p>Preparation of meeting minutes by contractor \$3,500 50 technical hours, 12 clerical hours</p> <p>Mail out draft meeting minutes to CC^b \$400 Draft and prepare letter and mailing labels, postage (U.S. Mail)</p> <p>Total for meeting expenses (without travel costs) \$14,950</p> <p style="text-align: right;">x 5 meetings</p> <p style="text-align: right;">\$74,750</p>				
(continued on the next page)				

**ICCR Budget for Information Collection Subgroup
Recommendation (K\$)**

	Oct- Dec	Jan- Mar	Apr- Sept	Total
II. Travel to 3 meetings for 2 contractor staff				
Airfare @ \$700 x 2				\$1,400
Hotel, rental car, meals (2 people)				\$700
				\$2,100
				x 3 meetings
Total travel costs				\$6,300
III. Subgroup activities				
Contractor support for subgroup activities (meeting attendance, technical presentations & handouts, brief notes) 24 technical hours/month x 9 months				\$15,100
Total for Meetings and Subgroups				\$96,150
IV. TTN				
TTN and listserver support - 20 technical hours/month x 9 months				\$7,200
Total Meetings and TTN/Listserver				\$103,350
> Facilitation	30	30	50	110
Basis for \$80K estimate for Jan-Sept:				
Prepare agenda prior to meeting (20 hours)				\$1,500
Labor to attend and facilitate 2-day meeting - 20 hours x 2 facilitators				\$4,600
Airfare from Colorado (2 people)				\$1,600
Hotel, rental car, meals (2 people)				\$700
Total for CC meeting facilitation				\$8,400
				x 5 meetings
				\$42,000
General participant contact				\$12,000
Conference calls, subgroup participation, debriefing and status meetings with EPA and other activities				\$26,000
Total facilitation support				\$80,000
> EPA Travel	--	4	2	6
Assume 1 meeting in DC, 1 in Chicago, 1 in LA				
> Non-EPA Travel	2	8	12	22
Assume travel assistance for 7 CC members for 2 meetings in RTP, 1 in DC, 1 in Chicago, 1 in LA				

**ICCR Budget for Information Collection Subgroup
Recommendation (K\$)**

	Oct- Dec	Jan- Mar	Apr- Sept	Total
• Work Groups				
> Meetings/Minutes	70	130	260	460
Basis for \$390K estimate for Jan-Sept:				
Assume 8 1-day WG meetings of each Source Work Group in Jan - Sept (3 in RTP, 2 in DC, 1 in Chicago, 1 in LA, 1 in Houston)				
I. Meeting Expenses for 1 Work Group				
Room rental				\$300
A/V equipment				\$300 ^c
Pre-meeting logistics (locate room, setup & A/V arrangements, contracts, update membership lists, nametags, table tents, agenda, notify members of meeting) 40 hours plus materials				\$1,700
Preparation of meeting presentations and handouts, 40 technical hours, 6 clerical hours				\$2,600
Copies of handouts and overheads 50 pages x 50 copies x 5¢/page				\$125
Labor for note-taker(s) (2 people x 8 hours)				\$1,000
Registration/logistics during meeting				0 ^d
Preparation of meeting minutes by contractor 30 technical hours, 8 clerical hours				\$2,000
Mail out draft meeting minutes to Work Group or mail out information before the meeting. Draft and prepare letter and mailing labels, postage (U.S. Mail)				\$400 ^b
Total meeting expenses (without travel costs)				\$8,425
				x 8 meetings
				\$67,400
II. Travel and per diem to 5 WG meetings for 1 contractor staff				
\$950/trip x 5 meetings not in RTP				\$4,750
III. Subgroup activities				
Contractor support for subgroup activities (conference calls, etc) 10 technical hours/month x 9 months				\$5,850
Total for each Source Work Group				\$78,000
				x 5 Source Work Groups
				\$390,000

**ICCR Budget for Information Collection Subgroup
Recommendation (K\$)**

	Oct- Dec	Jan- Mar	Apr- Sept	Total
> Facilitation	30	41	83	154
Basis for \$124K estimate for Jan-Sept:				
Prepare agenda prior to meeting (10 hours)				\$750
Labor to attend and facilitate 1-day meeting (10 hours)				\$900
Airfare (1 person)				\$800
Hotel, rental car, meals				\$200
				<hr/> \$2,650
assume 8 meetings per Work Group (Jan - Sept)			x 8 meetings	\$21,200
assume 3 Work Groups have facilitators		x 3 source	Work Groups	
Total for WG meeting facilitation				\$63,600
General participant contact				\$5,000
Conference calls, subgroup participation, debriefing and status meetings with EPA, and other activities				\$15,000
				<hr/> \$20,000
			x 3 Work Groups	\$60,000
Total Facilitation support				\$123,600
> EPA Travel	1	14	30	45
Assume each Source Work Group and Testing Work Group has 1 meeting in DC, 1 in Chicago, 2 in LA, and 2 in Houston (Oct'96 - Sept'97).				
Assume Economics Work Group has 1 meeting in DC, 1 in Chicago, and 1 in LA.				
> Non-EPA Travel	4	50	100	154
Assume travel assistance is provided to 9 Source Work Group members (total) and 3 Testing Work Group members for 4 meetings in RTP, 1 in DC, 1 in Chicago, 2 in LA, and 2 in Houston (Oct'96 - Dec'97).				
Assume travel assistance is provided for 3 Economics Work Group members to 1 meeting in RTP, 1 in DC, 1 in Chicago, and 1 in LA.				

**ICCR Budget for Information Collection Subgroup
Recommendation (K\$)**

	Oct- Dec	Jan- Mar	Apr- Sept	Total
<u>Information Collection Request</u>				
> Development	15	--	--	15
> Distribution/Followup	--	30	98	128
Basis for \$128K estimate for Jan-Sept:				
Assume 20,000 recipients				
Develop ICR Recipient List				
Develop groupings and pull each facility or a statistical sample of facilities in existing database for given SIC/Fuel-waste type groupings of interest (60 tech hours)				\$3,900
Develop ICR Forms				
Identify scanning services, capabilities and constraints (80 tech hours)				\$5,200
Develop instructions for survey. Review Hardcopy of forms for burden reduction possibilities and to make them consistent for use with a scanner (100 tech hours)				\$6,500
Develop the Section 114 cover letter and standard confidentiality and authority enclosures (20 tech hours)				\$1,300
Develop an interface between the data from the scanner and the ICCR database (40 tech hours)				\$2,600
Mailing the ICR, and Follow-up				
Call 4,000 facilities whose addresses in database are not complete, enter address (5 minutes/facility = 333 hours)				\$15,000
Assign ID #s to each facility for label, prepare disk of recipient names, ID #s, mailing addresses, and/or physical addresses to supply to GPO (200 tech hours)				\$13,000
Personalized cover letter, survey form, and envelopes				\$13,000
Printing/copying				\$7,000
Collating and stuffing envelopes				\$4,000
Postage (assume \$1.70 per envelope)				\$34,000
Hotline and email to answer recipients' questions and document each call (1 person for 1 month)				\$10,920
Total for distribution				\$116,420
Contingency (10%)				\$11,642
Total including contingency				\$128,062

**ICCR Budget for Information Collection Subgroup
Recommendation (K\$)**

	Oct- Dec	Jan- Mar	Apr- Sept	Total
<u>EPA Database Development</u>				
> OTAG/AIRS/State/STIRS	125	148	37	310
Basis for \$185K estimate for Jan-Sept:				
Database Development Tasks				
Incorporate ICWI/OSWI Data (160 tech hours)				\$10,400
Incorporate State Data (22 states, 40 hours/state) (880 hours)				\$57,200 ^e
Handling CBI State Data (120 tech hours)				\$7,800
Entering STIRS Data (assumes 323 boilers, heaters, and incinerators test reports with toxics data, 4 reports entered/day) (646 tech hours)				\$41,990 ^f
Complete turbines/engines entry				\$10,000
QA/QC (200 tech hours)				\$13,000
Summary Reports in January, March/April, August, and one other time (assumes 40 hours each time) (160 tech hours)				\$10,400
Prepare data files for ease of use for distribution (60 hours each release, 3 releases) (180 tech hours)				\$11,700
Prepare CDs to distribute data files, includes cutting the CDs and putting on TTN. (assume 3 different releases of the data, assume 30 CDs cut each time, 1 hour per CD, and 1 hour for TTN work each time) (93 tech hours)				\$6,045
Total Database Development Work				\$168,535
Contingency (10%)				\$16,853
Total including Contingency				\$185,388
> ICR Compilation	--	--	242	242
Basis for \$242K estimate for Jan-Sept:				
Compilation - Interim Activities and after Data Entry Forms are Received				
Develop program for QA/QC, sanity checks (80 tech hours)				\$5,200
Login forms received and check for CBI (20,000 questionnaires received, 1 minute per questionnaire) (333 tech hours)				\$22,029
Follow-up letters for ICRs not received (assume 2,000 sent, 30 per hour to label and stuff, \$0.04 per copy, 32 hours to prepare letter and mailing list) (99 tech hours)				\$6,521
(continued on the next page)				

**ICCR Budget for Information Collection Subgroup
Recommendation (K\$)**

	Oct- Dec	Jan- Mar	Apr- Sept	Total
Code or create a non-CBI version of each CBI questionnaire received prior to sending to scanning service (10% claimed as CBI, 5 minutes per questionnaire) (167 tech hours)				\$11,015
Estimated Scanner Service Cost to consult on format of questionnaires, provide scanning equipment and personnel to scan forms, QA and keypunch items that don't scan correctly. (set-up, 20,000 questionnaires, 5 pages per questionnaire)				\$38,000
Oversee scanning operation, address questions (50 tech hours)				\$3,250
General QA of data once all of it is on the database. (100 hours for computerized sanity checks plus 10 minute follow-up x 10% of facilities (2,000) to address questions) (433 tech hours)				\$28,616
Compilation - Logistics in Receiving 20,000 Questionnaires				
Preparation to receive questionnaires, planning of procedures, space issues, etc. (20 tech hours)				\$1,300
CBI login (assume 10% are CBI, 5 minutes each) (167 tech hours)				\$11,015
Development of non-CBI form of database (150 tech hours)				\$9,750
Docket (assume ERG rather than EPA/DC assigns docket numbers, 2 minutes per questionnaire to assign #, prepare index, transmit to DC, and file) (667 tech hours)				\$44,058 ^a
Docket copying costs: 200,000 copies (20,000 questionnaires x 5 pages each x 2 copies x \$0.04/copy)				\$8,000
Incorporate data from 4 Trade Associations (480 tech hours)				\$31,200
Total for Compilation				\$219,954
Contingency (10%)				\$21,995
Total including contingency				\$241,949
<u>Source Category Development</u>				
> Combustion Turbines	15	22	63	100
> IC Engines	15	22	63	100
> Waste Incinerators	20	60	120	200
> ICI Boilers	--	10	116	126
> Process Heaters	--	3	77	80

**ICCR Budget for Information Collection Subgroup
Recommendation (K\$)**

	Oct- Dec	Jan- Mar	Apr- Sept	Total
<u>Economic Analysis</u>	--	10	30	40
<u>Emission Testing</u>	--	--	?	?
<u>Total Estimated Expenditures:</u>				
> Travel	7	76	144	227
> Economic Analysis	--	10	30	40
> Testing	--	--	?	?
> Contingency	--	14	37	51
> All Other	360	524	1,233	2,117
Total Estimated Expenditures:	367	627	1,444	2,435
<u>EPA Funding:</u>				
> Travel				227
> Economic Analysis				40
> Testing				?
> All Other				2,033
Total Funding:				2,300

- ^a Person who mans registration for entire first day and half of second day for late arrivals; interacts with hotel staff when copies are needed or equipment problems arise; answers questions on restaurants, logistics, etc.
- ^b By using only the TTN and the Coordinating Committee (CC) E-Mail list, we can eliminate this cost.
- ^c May be less if the Work Group and audience are small so that microphones are not needed.
- ^d Assumes there is no registration table and that the logistics coordinator does not remain on-site during the meeting. One of the note-takers or EPA staff can pass around an attendance list and interact with the hotel if copies are needed or A/V problems develop.) The need for registration and logistical support during the meeting depends on the size of the Work Group and audience and the complexity of the set-up.
- ^e Assumes facility IDs and SCCs already assigned and compatible with ICCR database.
- ^f Boilers, heaters and incinerators test reports. Does not include 700 STIRS reports with only criteria pollutants.
- ^g This cost could be reduced if it is acceptable to only docket the compiled database rather than each response form.

“These minutes represent an accurate description of matters discussed and conclusions reached and include a copy of all reports received, issued, or approved at the March 19-20, 1997, meeting of the Industrial Combustion Coordinated Rulemaking Coordinating Committee Meeting. Fred Porter.”